

CHOICE

Christmas shopping special:

- 89 chardonnays under \$20
- Annual Buying Guide
- Notebook computers • Kitchen gadgets • Mini hifis • Safe ladders
- Corkscrews



Renting a car?

What you need to know
— and probably don't

Don't shop till you drop



Jane Mackenzie

A quick look at this issue's contents pages will show you that it's packed full of tests and product information that should help take the hassle out of Christmas shopping or the January sales.

Our *Annual Buying Guide* (page 14) brings together the results of our tests over the past year in a handy compilation that lets you know which of the Best Buys are still available and how much you can expect to pay for them.

Other tests cover everything from notebook computers to chardonnay, mini hi-fi systems to (safe) ladders, corkscrews to kitchen gadgets. We hope this Christmas shopping special will help make the most expensive season of the year a more relaxed and less risky round of buying.

Another seasonal 'purchase' at this time of year might well be renting a car for your holiday. We were shocked to discover how harsh some of the terms and conditions in rental car contracts were, and how many holes there are in the insurance provided.

For example, would it have occurred to you that you could be charged an excess of up to \$5000 if you have an accident that doesn't involve another vehicle? Or that most contracts don't cover driving on an unmade road — and if any mishap occurred the rental company would hold you responsible for the entire repair bill?

There's a lot more you need to know about hiring a rental car, and you'll find out what to ask and what to look for in a contract on page 28.

Small print aside, we at CHOICE hope you all have a very happy and safe holiday period, a celebratory Christmas and an optimistic New Year.

See you in 1998.

Jane Mackenzie, Editor

Your letters

We welcome the letters you send us — please always include a daytime telephone number so we can contact you quickly if we want to follow your letter up. We're sorry we can't personally answer every letter we receive, but we do use them in our research. Thanks for taking the time to keep in touch.

Write to us at CHOICE, 57 Carrington Road, Marrickville 2204.

Phone us on (02) 9577 3399.

Fax us on (02) 9577 3355.

email us at ausconsumer@choice.com.au

World Wide Web address: www.softcom.com.au/ACA/

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Cover photo: Kent Mears



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Chardonnay is the most popular white wine in Australia — and here's how to find a good one for (a lot) less than \$20.



Don't pay extra tax!

You have until December 15 to provide your superannuation fund with your tax file number. If you don't and the Tax Office can't find it, you could end up paying 30% tax on your super contributions: 15% super contributions surcharge on top of the 15% tax you already pay.

For more information, contact your super fund, or the Tax Office on 13 10 20.

Coming in the next three issues:

Tests: Gas cooktops, VCRs, mobile phones, saucepans, fish, multisc CD players, 500 L fridges, day backpacks, 51 cm TVs, bathroom heat lamps, laundry detergents.



▲ We asked a group of subscribers how useful food labels were to them.

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To go with your chardonnay, we ran a user trial to find the ultimate wine drinker's friend — the corkscrew that really works.



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Don't be caught buying yourself or a friend a gadget for Christmas that will sit gathering dust at the back of a cupboard. Our subscribers told us which ones they'd found useful and which they wish they'd never bothered with.

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Some ladder manufacturers reacted promptly when CHOICE failed their products on safety grounds in our January 1997 issue. This test reports on their upgraded models — and now it's a lot easier to find a safe ladder in the shops.



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Notebooks offer battery-powered portability and take up much less room on your desk — but, compared to desktop computers, at a much higher price. Are they for you, and which models were the best on test?

43 Mini hifis: Sizing the sound

Mini stereo systems: are they mini in sound as well as size? We tested 10 to find out.

Reports: Vision care, how supermarkets make you buy, product certification schemes, organic food, ethical investment, electronic banking, how satisfied are you with your bank?, food labelling, shopping guide to paper products, great financial disasters of our time, TV infomercials and advertorials, retirement villages.

We try to bring you tests and reports in the planned month, but sometimes have to move an article because of problems that occur during testing and research, or for lack of space in a particular issue. We apologise if this causes any inconvenience.

Open secrets

WE'VE ALL HEARD HOW competitive insurance salespeople can be, but VP of Glen Waverley in Victoria met one who knew a lot more about him than he should have.

VP, who has disability insurance with MLC and life insurance with Tyndall, was approached by a broker to compare his current policies with a competitive company's premiums.

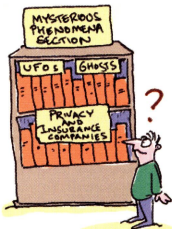
Thinking he might be presented with a cheaper deal, VP gave the broker his date of birth. But later when the broker got back to him he knew all about VP's current policies and his financial situation.

Obtaining such information without a person's knowledge or consent is illegal. A shocked VP said: "My first question [to the broker] was: how did you manage to get this information without authorisation?"

The broker skirted the question, and when CHOICE contacted VP's two insurers, both were surprised to hear of the case, which reflected badly on their security systems.

Tyndall assured CHOICE it has a two-password authentication system for anyone trying to call up account details. A spokesperson said the only way the broker could have entered the system was if he'd obtained the passwords from someone. Whoever passed them on was unauthorised by the company.

MLC was equally puzzled and concerned that its security system had been breached, saying telephone enquirers need to know the account holder's middle name, address



and policy number as well as their date of birth before its database can be accessed.

If VP had wanted to take the matter further, he could have contacted the Insurance Brokers Dispute Facility, which deals with complaints. It told us there'd been no complaints relating to similar illegal access to client information.

It remains a mystery how the broker knew about VP's financial situation. But in the end it did him no good — VP didn't take up his policy offer after all.

Free: CHOICE energy booklet

How to save energy and your money

BETWEEN DECEMBER 1 AND 10, DELEGATES FROM MORE THAN 150 NATIONS meet for the World Climate Change Conference in Kyoto, Japan, to discuss what the world community should do to limit the consequences of an increasing greenhouse effect: climatic changes that may threaten life on earth as we know it.

The Australian government has already announced it won't agree to the proposed binding reductions in greenhouse gas emissions for Australia.

Fortunately, there's no need to wait for our government to take action. There's a lot you can do yourself, and now: save energy. The production and use of energy are main contributors to the increase in greenhouse gas emissions. If each Australian household became more energy-efficient, we'd already be a big step closer to meeting the goals the Climate Conference is trying to achieve.

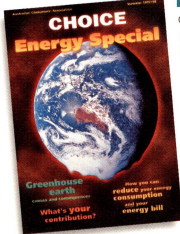
And the good thing is that saving energy not only reduces the amount of greenhouse gas emissions you produce, it'll also save you money.

Our booklet, the CHOICE Energy Special, will help you. In 12 pages you'll find:

- An easy-to-understand explanation of the greenhouse effect and its possible consequences.
- How to identify the areas in your household with the biggest energy-saving potential.
- Plenty of tips and hints on how to reduce your energy bill.

For your free copy of the booklet, send a stamped (\$1.25 in NSW, \$1.50 other states) envelope, of a size you could fit a copy of CHOICE into, to:

Energy booklet, CHOICE, 57 Carrington Road, Marrickville 2204.



Want some free financial advice?

OUR LAST SURVEY INTO FINANCIAL ADVISERS (CHOICE, April 1995) caused quite a stir when we didn't find much to praise about the plans drawn up for our readers.

But we're hoping the industry will have picked up its game — and we need volunteers to test the current quality of financial advice throughout Australia.

If you have some money to invest (it could be super, savings, an inheritance, proceeds from selling your home, etc) and are unsure where to put it for optimum security and earnings, let us know if you'd like to take part in our trial.

Participants will be asked to visit three different advisers in March/April 1998 (we'll pick up the bill), explain their circumstances and report back on the quality of advice received and the quality of service.

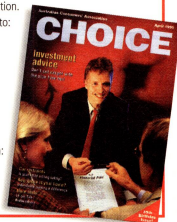
The individual financial plans will then be assessed by a panel of industry and independent experts.

Naturally, your details will be kept confidential in any article CHOICE publishes as a result of the survey and throughout its preparation.

If interested, write to:

Financial planners trial, CHOICE, 57 Carrington Road, Marrickville 2204, by January 30, 1998.

Please mark the envelope 'Private and confidential. Attention: Anna George', and include your daytime telephone number.



Building dispute resolution

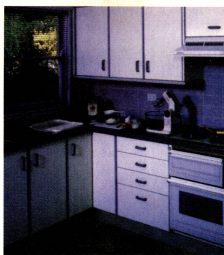
GWEN REDMAN, FROM DUNGOG, NSW, had a problem with her NOBBY kitchen — the varnish was slowly flaking off its cupboard doors. For months she waited for NOBBY to respond to her calls, but the company didn't send anyone to repair the kitchen, even though it was still under warranty.

Gwen took her problem to the NSW Department of Fair Trading. It told her the only way she could force NOBBY to service the kitchen was to take legal action. Unfortunately, this wasn't something she could afford.

Frustrated at being left in an apparently hopeless situation, Gwen consulted a solicitor to see if she had any other options. The solicitor told Gwen that the advice given to her by the Department of Fair Trading was wrong.

As it turned out, she could lodge a claim with the Department's own Building Disputes Tribunal for a very small fee — with her social security concession it was only \$5. And as the tribunal normally doesn't allow lawyers to present someone's case at its hearings, Gwen wouldn't have to worry about any legal costs, either.

However, it looks as though her case won't even have to go that far. Soon after she lodged her claim, the tribunal formally



If a company has its name on your warranty, it's obliged to ensure the conditions are upheld even if contractors do the building work.

notified NOBBY of Gwen's complaint and the company is currently taking steps to address the problem.

It told us the reason it hadn't repaired Gwen's kitchen before was that it believed the contractor who installed it was responsible for fulfilling the warranty. It also said this particular contractor no longer has a franchise to sell NOBBY kitchens because its service "isn't professional". NOBBY is planning to do Gwen's repair work itself.

While Gwen's kitchen was installed by a contractor, her warranty still reads "Nobby Kitchen Guarantee". Our solicitors advise us that the company would therefore have a binding obligation to ensure the conditions of its guarantee are upheld.

Help CHOICE test our new Web site

In the New Year CHOICE will be launching a new Web site containing information about your consumer rights, shopping hassles, where to get consumer help and lots more useful information and buying tips.

If you're an Internet user who lives in Sydney and you'd be interested in helping us road-test our new site before we launch, we'd like to hear from you. You need to be over 18 and available to come into our Marrickville offices during working hours for one morning or afternoon during the week beginning February 9.

If you think you might be able to help, please write to us, including details of how long you've been using the Internet and how often you access it. Please also include your daytime phone number and your age and sex, so we can be sure to get a range of different people.

Send your letters to **CHOICE Web site testing**, 57 Carrington Road, Marrickville 2204, or fax to (02) 9577 3377. You can also email your replies to ausconsumer@choice.com.au

Correction

Where there's smoke, there should be a smoke alarm October 1997

In the table on page 13, we listed **FAMILY GARD** and **FIRST ALERT** smoke alarms in the category *ionisation alarms*.

BRK Brands has informed us that all of these alarms have dual ionisation chambers and should therefore have been listed in the category *Dual ionisation alarms*.

Is echinacea worth taking?

ECHINACEA IS TOUTED AS A wonder herb of the '90s, but is it worth the money?

While the label on over-the-counter echinacea products is likely to tell you it can relieve the symptoms of colds and flu, the government doesn't require this kind of claim to be substantiated before a product is put on the market. Authorities only require information to prove that this sort of product is safe to use.

Although herbal practitioners swear by it and sales are booming, the Australian Medical Association is not convinced it works. However,

there is some scientific evidence that the herb helps to stimulate the immune system.

Some people take echinacea when they feel a cold or infection coming on, while others take it on an ongoing basis in the hope of preventing colds.

If you do choose to use it as an ongoing preventive medicine, it's a good idea to take regular breaks:

- While the evidence so far suggests ongoing use of echinacea is unlikely to be a problem, any possible long-term stimulation of the immune system may have side effects.
- Herbalists advise it isn't

ECHINACEA PLUS

Quality Herbal Formula

For the relief of symptoms of colds, flu, hayfever and catarrh



necessary for the average person to use it all the time, so it will save you money if you don't. Existing studies support its use for up to 12 weeks at a time. If echinacea does in fact work, the best time to take it would be over winter when you're most at risk of getting colds.

TEST REPORT

In recent years, chardonnay has come out of nowhere to seize an extraordinary 37% of the white wine market. It may be "everybody's favourite blonde", but how good is it really, given its often high price? Here's a guide to the under \$20 range.



Chardonnay: *wine of the '90s*

IN BRIEF

■ In the under \$20 market, there's no need to pay top dollar for a reasonable chardonnay. If you shop around, you should be able to find at least half of our top 30 for \$12 or less.

■ The majority (51 out of 89) of our chardonnays were voted 'safe, no faults, no highlights' (a score of 14 to 15 out of 20). This didn't thrill the experts, but is reassuring news for the consumer.

IN AN ATMOSPHERE OF INTENSE concentration reminiscent of a Fischer vs. Kasparov chess tournament, our six wine tasters worked their way through 89 chardonnays that are widely available and cost around \$20 or less.

Between each tasting bracket of around 30 wines, the tasters gave their verdicts in the robust language common to their profession. Those they disliked, for example, got: "Smells like stale armpits", or "tastes like dry cleaning and lacks grace". Those with good points got "honest glass of sunshine" or "clumsy but good-natured".

To see whether the experts' tastes matched the ordinary wine drinker's, we also asked eight white wine drinkers to try a selection of the 89 chardonnays. We didn't use the lay panel's results to rank the wines, but they do show how expert and lay tastes can sometimes differ.

Even among the experts, however, a number of the wines evoked 'mixed emotions'. This reflects the limitations of any strict point-scoring system. While

it can reveal when a wine has genuine faults, it can't guarantee you'll like it. Ultimately, your choice of wine remains very personal. Use this CHOICE test as a guide and a starting point.

Nothing special

The unusual and sad outcome of this test was that out of 89 chardonnays at the cheaper end of the market, few had anything special to offer. The majority fell into the 'safe, no faults, no highlights' category (which translates to a score of around 14 to 15 out of 20).

Our experts were really disappointed — although they are self-admitted harsh critics, and this doesn't necessarily mean consumers would be equally disappointed.

The experts pointed out that chardonnay quality is currently suffering from the category's huge growth. Many of the vines are still very young (about five years old), and the market is so buoyant that, in this segment, producers can get away with very little correlation between price and quality.

On the upside, this can sometimes work out well for consumers. One of the best two wines in the test, **TYRRELL'S Old Winery 1996**, costs \$10 to \$15 — far from the top end of the price range. And for really good value, the **HARDYS Nottage Hill 1996** for \$7 to \$9 scored only slightly lower (see the table on pages 9 to 11 for full details of scoring and prices).

In contrast, the wine judged "...awful and awful for the price", **BLUE PYRENEES Estate 1996**, costs upwards of \$18 (it cost us \$22.95).

Of the wines we tested priced at or over \$17, two wound up in the 'mixed emotions' category (they got wildly varying scores and responses from our expert tasters). Only one in that same price range was in the top 30 wines.

You clearly don't need to spend more than \$20 to get a reasonable chardonnay. If you want something more special occasionally, you could try going into the over \$20 range. According to our experts, you should get more weight of flavour, more length, and more personality — but they warn there are no guarantees.

Mixed emotions — worth a try?

A number of the chardonnays got a very mixed response, which makes their averaged score pretty meaningless (some tasters loved them, others hated them). A 'mixed emotions' wine can often mean it has some personality — but there's no guarantee you'll like the personality! So it's really up to you to decide if you'd like to give them a whirl.

The wines from our test which fell into this category reflect a wide range of prices, from around \$10 for the **BANROCK STATION Unwooded 1996** and the **FIDDLERS CREEK 1996** to around \$20 for the **ROSEMOUNT Estate Reserve 1996**. The table lists them in full.

Expert taster Louisa Rose seems to have mixed emotions about this wine — but when you can buy some of the wines that fell into this category for around \$10, it's probably worth trying them to see if you like them.



Vintage

Most of the chardonnays in the test tend to be made to a particular style regardless of vintage, so don't worry if you can't buy exactly the vintage we tested. You can still use our results as a guide: even if what you buy may be slightly different in flavour, its basic style will probably be the same and you should like or dislike it just as much.

The best ... and the rest



The best all round

■ **TYRRELL'S Old Winery 1996** (\$10 to \$15) and **GULF STATION Yarra Valley 1996** (\$15 to \$20) were the best chardonnays in the test, according to the experts — and the lay panel on the whole agreed with them.

Best unwooded

■ Of the 19 unwooded chardonnays,

the experts preferred the **PLANTAGENET Omrah Unoaked 1996** (\$16 to \$19).

Unwooded or unoaked chardonnay is a trend (which some think may not last), and represents a move away from the full, buttery, rounded flavour of chardonnays fermented and stored in oak barrels. Good unoaked chardonnays are fresh, light and lively. When poorly made, as many apparently were in 1996, they have been alternatively described as "one-dimensional, skinny and expensive" — although those in our test didn't reflect this.



The best value for money

■ The best value for money was **HARDYS Nottage Hill 1996** (\$7 to \$9), with a score of 16 out of 20.

■ Good value for money was offered by **TYRRELL'S Old Winery 1996**, **RENMANO**

Chairmans Selection Show Reserve 1996, **COWRA ESTATE 1997**, **MIRANDA High Country 1996** and **WYNNS Coonawarra Estate Coonawarra 1996** (all around the \$9 to \$16 mark).

■ A slightly lower scorer, **MIRANDA Mirrool Creek 1996**, also won't make much of a hole in your pocket at anything from \$6.20 to around \$9.



The worst

The experts liked **YALUMBA Barrel Reserve Family Select 1996** the least (it scored just 13.5), but it wasn't unacceptable to the lay panel. **BLUE PYRENEES Estate 1996** was one of the most expensive low scorers, as was **EVANS & TATE Two Vineyards 1996**, which neither the experts nor the lay panel had much time for.



Do medals mean much?

Medals are not a good guide to buying wine, our experts say.

According to David Wollen, Director of Wine Network

Australia, medals on a bottle are only one of the ways consumers can get information about which wines to buy. They need to be double-checked against your wine retailer's expertise, tips from wine writers, and so on.

Many of the best wines are never entered into shows. In addition, judges at a show will typically taste up to 200 wines in a day, so wines with a big, bold character will inevitably capture their attention — and others with more finesse and subtlety could all too easily be ignored.

However, although the wine show and medal system has many drawbacks, it does serve as an incentive to winemakers to keep improving their products.

Chardonnay: past, present and future

In Australia today, the white grape variety most often planted is chardonnay. But this is only a very recent phenomenon.

The chardonnay has its historic home in the French region of Burgundy, where it is used to make chablis and white burgundy. No-one knows exactly where the grape originated, but it was somewhere in the Orient and probably dates back to the time of the Crusades (some was planted in Lebanon long before its appearance in France).

Chardonnay really only started to take off in Australia as a wine variety 20-odd years ago. It was Murray Tyrrell, one of our best-known winemakers, who took the variety from obscurity and produced his first Vat 47 Chardonnay in 1971.

Since then, chardonnay has made astonishing inroads into the market, both domestically and internationally. Australian production has doubled every four years, and stood at six million cases in 1996.

Why is it so popular? Brian Croser, maker of the famous Petaluma Chardonnay, points to the grape's adaptability: "It's hardy, very easy to grow in a wide variety of climates, and easy to work with from the winemaker's point of view."

It also yields a most satisfying, flavoursome, richly textured wine, which has been marketed with an affluent, cosmopolitan image. According to Mr Croser, chardonnay has even conquered that spirit-dedicated culture, the US, where it's now drunk before dinner. "It's not a trend, but rather a big investment — here to stay."

What makes a good chardonnay?

According to our experts, it's all in the mouth-feel, which should be smooth, rich and oily. Then comes the fruitiness — it has to have some sweetness even though it's a dry wine — which must be harmoniously balanced with acidity.

Next, good length (see *Let's talk wine tasting*, right), a complex combination of finesse and power; a lovely aroma; and golden colour, ranging from pale to buttercup yellow. Except in the case of unwooded chardonnays, there should also be an elegant touch of oak (from the barrel, preferably, not from added oak chips).



Chardonnay can vary in colour from very pale lemon or straw to a deep golden 'buttery' tone. This is usually a guide to their flavour: the lighter the colour, the lighter and brighter the flavour — it's often a sign of an unwooded chardonnay. A deeper colour tends to reflect a richer and more intense flavour.

Let's talk wine tasting

Wine tasting has a language all its own, detailed as far back as in Ancient Greek literature. There are special vocabularies to communicate the structure, alcoholic strength, sweetness, acidity, astringency, taste and aroma of the wine. Here CHOICE cracks a few of the codes for you.

■ **Long or short** The flavours of the wine evolve from start to finish of the tasting. If the initial agreeable impression lasts, the wine is long (and good). If it changes rapidly, the wine is short.

■ **Lean or hollow** Wine which lacks body or fullness.

■ **Hot or burning** Wine where the alcohol over-dominates.

■ **Sweet and sour** Wine affected by lactic acid bacterial spoilage.

■ **VA (volatile acidity)** Unpleasant, excess acidity you can taste and smell.

■ **Commercial** Popular-style wine without defects.

■ **Disjointed or unbalanced** Wine which lacks harmony between the different elements, such as fruit and acid.

■ **Phenolic** Wine which tastes astringent or bitter, due to faulty winemaking (left sitting on the grapeskins for too long).

■ **Aldehydic** Refers to a nutty, sherry-like aroma which can kill off the fresh fruit characters of chardonnay. More desirable in sherry or some champagnes.

Some of the most colourful vinous expressions are used to describe the odours in wine — for example, wet dog, gunpowder, herbaceous, turpentine, vanilla, nail varnish and mouse pee.

Our experts

Our thanks go to our six expert tasters, who gave their time, expertise and fine turn of phrase to evaluating the wines. They were, clockwise from top left:

- Peter Bourne, wine writer and consultant.
- Ian Cooke, retailer, Five Way Cellars, Paddington, Sydney.
- Brian Croser, winemaker, Petaluma.
- Laura Rose, winemaker, Yalumba.
- David Wollen, Director, Wine Network Australia.
- Huon Hooke, wine writer, *Sydney Morning Herald*.



CHARDONNAY UNDER \$20

Brand (in order of averaged tasting scores, followed by price)	Price range (\$)	Additives	Averaged score	Tasting notes
TYRRELL'S Old Winery 1996	9.90-14.99	220, 300	17	Golden green colour; smoky, bacon, fruit, gently wooded nose; full, sweet, quite mature flavour — "stylish, smoky, touch of sweetness".
GULF STATION Yarra Valley Lightly Oaked 1996	14.99-19.99	220, 300	17	Mid yellow colour; creamy, slightly tropical aromas; good fruit weight and length — "simple but good".
HARDYS Nottage Hill 1996	6.90-8.99	220, 300	16	Golden yellow colour; sunny, ripe, peachy, lots of fruit aromas; flavoursome palate, simple fruit, some length — "one of the better ones".
RENNANO Chairmans Selection Show Reserve 1996	8.99-15.99	220, 300	16	Bright lemon colour; lemon essence, peachy, smoky nose; full and fresh palate — "generous peachy fruit and oak".
WYNNS Coonawarra Estate Coonawarra 1996	10.40-13.99	220, 315	16	Lemon colour; creamed honey, nutty, charry oak nose; sweet fruit, full toasty oak palate — "big, complex, nice wine".
COWRA ESTATE 1997	10.99-13.95	220, 300	16	Mid lemon-yellow colour; attractive fruity nose; slippery, slurpy, fruity — "good commercial wine".
MIRANDA High Country 1996	10.99-12.99	220, 300	16	Pale gold colour; oaky, tealeafy nose; some flavour interest and style — "decent basic chardonnay with a little extra flavour".
ROSEMOUNT ESTATE Estate bottled 1996 (A)	11.98-18.99	220, 300	16	Full yellow colour; dull, confectionery, sweet earth, pineapply nose; ripe to broad and generous flavours — "flavoursome, good length".
GRAMP'S Barossa 1996	11.99-13.99	220, 300	16	Bright buttercup colour; toasty, charry, nutty aroma; oaky palate, lacking in fruit intensity and definition — "has richness but a little oak-driven".
MOONDAH BROOK 1996	11.99-15.99	220, 300	16	Pale gold colour; rich, creamy, toasty, fruit aromas; complex, bold, nicely wooded but hot palate — "lots happening, lots of flavour, a few faults".
SIR JAMES 1996	11.99-15.99	220, 300	16	Pale yellow colour; light, toasty oak, fruit, creamy aromas; biscuit, oak flavour, short, soft palate — "consumer-friendly and toasty".
LINDEMANS Padthaway Vineyards 1996	12.90-16.99	220, 315	16	Bright yellow colour; very toasty oak, buttery, tropical fruit nose; big, broad, warm and overcooked flavour — "generous and flavoursome but overwhelmed by oak".
PENFOLDS The Valleys 1996	12.99-14.99	220, 315	16	Mid brass colour; buttery and creamy fruit sweetness on the nose; good ripe fruit, raw oak, palate a bit hot — "lots of oak".
SALTRAM Mamre Brook 1995	14.99-18.99	220, 300	16	Mid brass colour; subdued, subtle nose; quite lush, sweet full fruit flavours yet citrus acid — "good commercial style, lots of flavour and character".
PLANTAGENET Omrah Unoaked 1996	15.99-18.99	224, 300	16	Pale straw colour; pretty aroma, citrus, melon, tropical; fresh, zippy palate — "good wine, just a bit light on".
DE BORTOLI Yarra Valley 1996	18.99-21.98	220, 300	16	Golden colour; big, oaky, toasty nose; rich, full oak palate, too obvious, hot — "intense rich flavour, with oak dominant".
MIRANDA Mirrool Creek 1996	6.20-8.99	220, 300	15.5	Mid yellow-gold colour; oily, herbaceous nose; simple, pleasant palate — "one of the more complex wines".
SALISBURY 1996	6.90-9.75	220, 300	15.5	Buttery yellow colour; wet wood, rich earth, charry nose; sweet, developed, broad, hollow palate — "generous bottle age honey".
ANGOVE'S Classic Reserve 1996	7.90-9.99	220, 300	15.5	Medium yellow colour; light, fruity nose; sweet fruit palate, good texture — "simple, easy, commercial".
HARDYS Siegersdorf 1996	7.90-11.99	220, 300	15.5	Pale straw colour; simple light nose; simple light palate — "plain wine".
BANROCK STATION Unwooded 1997	7.99-10.99	220, 300	15.5	Pale yellow colour; grassy, fruity, lime nose; light, green fruit intensity, hot palate — "easy-drinking lighter style".
CHURCH HILL 1997	8.49-9.99	220, 300	15.5	Pale lemon colour; upfront, oaky, melon aromas; lots of fruit, palate lacks style and finesse — "bold and pungent".

1 Price

Prices are based on a survey of outlets in major cities in September 1997. They vary greatly and significant discounts can be found. The price of some of the chardonnays we tested varied widely between outlets, in some cases by up to as much as \$6. So if you find one you like, it's definitely worth shopping around. We almost always found the cheapest prices in Melbourne.

2 Additives

■ Sulphur dioxide (usually 220, sometimes 223 or 224) was added to all the chardonnays as a preservative. It helps prevent browning of the grape and inhibits the growth of bacteria, which might otherwise dominate the yeast in

fermentation. It also stabilises the wine colour.

Many asthmatics are sensitive to sulphur dioxide.

■ Most of the wines also contain ascorbic acid (300). This is added to prevent browning.

■ Some of the wines contain erythorbic acid (315) instead. There are no safety issues with either ascorbic or erythorbic acid.

3 Averaged score

The maximum score is 20, made up of a maximum of 3 for colour, 7 for nose and 10 for palate. The points awarded by the six experts were averaged. The tasters didn't know either the name or the price of the wines, and therefore didn't take them into account in their judgments. As a guide, the experts say that a score of 14 to 15 represents a "no faults, no highlights" wine.

4 Tasting notes

These are a summary of our expert tasters' comments on the wine's colour, nose, palate and overall impression. Given that many of the scores were so similarly middle-of-the-road, the tasting notes will give you a better idea of whether you'd like to try the particular chardonnay.

Mixed emotions (see page 11)

These wines evoked strong reactions in our tasters, who either loved or hated them, but couldn't reach agreement on them. They got such widely varying scores that averaging them means very little. You can try them and see what you think.

CHARDONNAY UNDER \$20

3

4

Continued

Brand (in order of averaged tasting scores, followed by price)	Price range (\$)	Additives	Averaged score	Tasting notes
SEAVIEW McLaren Vale 1996	8.90-11.99	220, 315	15.5	Yellow colour; ripe fig, stewed apricot, cherry aromas; sweet palate, a bit mawkish — "slightly disjointed, lacks style".
SEPPELT Corella Ridge 1996	9.90-13.99	220, 315	15.5	Pale yellow colour; lifted aromas, peach/apple/pear; even flavours, simple fruit, hard palate — "just an OK wine, refreshing".
CHATEAU TAHBILK 1995	10.90-14.99	220, 300	15.5	Mid yellow colour; peach, honey, slightly herbal nose; warm, ripe, tropical fruit flavours — "fair average quality".
ROUGE HOMME Coonawarra 1996	11.99-12.99	220, 315	15.5	Pale gold colour; citrus, honey and melon aromas; clean, even palate — "good commercial, but lacks depth or interest".
CHAPEL HILL Unwooded 1997	13.99-15.99	220, 301	15.5	Pale colour; herbaceous, green, rockmelon aromas; grassy, flavoursome palate — "quite a different style, but a good example of it".
CAPEL VALE Unwooded 1997	14.99	220, 300	15.5	Pale hues; fresh, herbal tea nose; straightforward, sweet fruit palate — "simple, fresh, unwooded".
DALFARRAS Unoked 1996	15.99	220, 300	15.5	Pale straw colour; light, simple, citrus and melon aroma; simple palate, good fruit — "light, good fruit, refreshing".
ROSEMOUNT Yarra Valley 1996	15.99-22.95	220, 300	15.5	Pale gold colour; aldehydic, herbal, gunpowder aromas; warm, ripe, short palate — "almost, but not quite, fermentation faults".
LINDEMANS Bin 65 1997	6.90-10.75	220, 315	15	Mid yellow colour; plain, clean nose; palate a bit hot with good underlying fruit — "good quaffing wine".
ORLANDO Jacob's Creek 1996	6.90-8.99	220, 300	15	Deep yellow colour; plain, broad and developed nose; palate lacks interest, sweet fruit — "simple and going nowhere".
DEAKIN ESTATE 1997	7.95-11.99	220, 300	15	Gold colour; herbal, grassy, nectarine aromas; not a lot of complexity in the palate — "ample fruit and flavour but lacks grace".
COCKATOO RIDGE 1996	7.99-10.99	220, 315	15	Mid yellow colour; flat nose, lacking fruit intensity; simple, coarse, confection flavour — "plain but flat quaffing wine".
OXFORD LANDING 1997 (A)	7.99-8.45	220, 315	15	Yellow-green colour; aromatic, intense nose; short simple palate — "plain, simple and short".
KRONDORF 1996	8.90-11.65	220, 300	15	Medium yellow-gold colour; sweet, peachy, buttery, cherry nose; broad, hot palate, oak dominates — "dodgy oak, tiring out".
ROUGE HOMME Unoked Coonawarra 1996	8.90-13.99	220, 315	15	Mid yellow colour; smell not attractive; simple palate and texture — "just a wine".
THE ROTHBURY ESTATE Cowra 1996	8.90-13.99	220, 300	15	Golden colour; light, bland nose; plain, round palate — "ordinary stuff".
WYNDHAM ESTATE Bin 222 1996	8.95-14.75	220, 300	15	Green hues; pungent, dull oak, ripe melon aromas; soft peach but coarse palate — "plain, commercial, drink now".
WOLF BLASS Eaglehawk 1997	9.69-11.99	220	15	Bright lemon colour; citrus, nutty, smoky aromas; attractive flavour — "OK commercial style".
WOLF BLASS Oak matured 1997	9.99-12.99	220, 300	15	Lemon spritz colour; fresh, ripe, tropical fruit aromas; plain, sweet flavour — "plain and harsh".
DE BORTOLI Windy Peak 1996	10.40-13.99	220, 300	15	Mid lemon colour; peachy, pleasant nose; simple palate — "commercial, poor finish".
ANDREW GARRETT 1996	10.95-13.99	220, 300	15	Yellow colour; subdued, ripe honey nose; bold, big, simple, biscuit flavour — "ordinary, drink up".
RICHMOND GROVE French Cask 1996	10.99-13.99	220, 300	15	Buttery yellow colour; dull oak, dusty, ripe nose; lots of oak, not enough fruit flavour — "lacks integration".
d'ARENBERG McLaren Vale The Olive Grove 1996 (A)	11.90-14.99	220	15	Mid yellow colour; oaky, peaches and cream, spearmint aromas; palate lacks complexity, hard edges, clumsy — "not well made".
ORLANDO St Hilary Padthaway 1995	11.90-14.99	220, 300	15	Old gold colour; burnt butter, honey, developed nose; very forward palate, phenolic, oily, broad finish — "traditional Aussie but oxidised and tired".
TAYLORS 1995	11.90-14.99	220, 300	15	Mid yellow colour; smoky, musty, oily aroma; herbal, sweet/sour, disjointed palate — "unbalanced".
BROWNS' OF PADTHAWAY Non-wooded 1996	12.99-13.95	220	15	Straw colour; oily nose with yeast characters; oily flavour, too much sugar — "awkward palate".
HARDYS Padthaway Unwooded 1996	12.99-16.50	220, 300	15	Pale straw colour; light, tropical aromas; simple, short flavour — "ordinary but OK balance and style".
JAMIESONS RUN 1996	12.99-15.75	220, 300	15	Golden colour; warm aromas, butterscotch and apple; buttery palate — "commercial with a hard finish".
PREECE 1996	12.99-14.99	220, 300	15	Mid straw-yellow colour; green fruit notes; long flavours, a bit plain — "good, simple, easy-drinking wine".
MONTROSE Mudgee 1995	14.99-15.99	220, 300	15	Yellow colour; plain, nutty oak aromas; sweet broad palate — "good commercial wine but oak unintegrated".
SANDALFORD 1996	14.99-18.99	220, 224, 300	15	Mid straw colour; lemon grass, aldehydic, creamy nose; green, lean, cheesy palate — "dirty wine".
ST HUBERTS 1995	15.99-19.99	220, 300	15	Deep brass colour; neutral, subdued nose; OK flavours, toasty oak — "just a drink, oak but not much finish".
BROKENWOOD 1996	16.99-22.99	220, 300	15	Mid brass colour; slight acid, stale nose; sweet, simple flavour — "crowd pleaser".
NINTH ISLAND 1997 (B)	19.99	220	15	Light colour; citrus essence, light herbaceous nose; green fruit, light style, sweet/sour palate — "green and simple".

	1	2	3	4	
Brand (in order of averaged tasting scores, followed by price)	Price range (\$)	Additives	Averaged score		Tasting notes
QUEEN ADELAIDE 1997 (B)	5.90-7.99	220, 315	14.5		Straw colour; herbaceous, honeydew melon nose; hard and lean palate — "coarse, clumsy".
McWILLIAM'S Hanwood 1996	6.90-8.50	220, 300	14.5		Medium straw colour; dull nose; flat flavours — "simple, coarse confection".
SEPPELT Moyston Unoked 1996	6.95-8.99	220, 315	14.5		Pale lemon-yellow colour; fresh, undeveloped nose; lean, short, simple flavours — "young, short and basic".
SALTRAM CLASSIC 1996 (A)	8.45-10.99	220, 300	14.5		Pale straw colour; confectionery nose, lacks freshness; short, thin flavour — "simple and ungenerous".
JIM BARRY Unwooded 1996	8.99-11.99	220, 301	14.5		Yellow colour; herbal, fruit, developed nose; blowsy, disjointed palate — "poor palate — going nowhere".
MONTROSE Poet's Corner Unwooded 1996	9.99-14.99	220, 300	14.5		Pale straw colour; simple, herbaceous nose; plain but faultless palate — "simple commercial style".
TAYLORS Promised Land Unwooded 1996	10.90-15.70	220, 300	14.5		Lemon colour; nutty, overblown nose; soft flabby palate, phenolic finish, lacks finesse — "nothing outstanding".
RICHMOND GROVE Cowra Vineyards 1996	10.99-13.75	220, 300	14.5		Pale brass colour; melon, oak aromas; slightly sweet and hot palate — "hard and broad".
BROWN BROTHERS 1996	12.95-18.95	220, 300	14.5		Pale gold colour; sweaty, dull, unfresh nose; palate OK but quite hot — "lacks interest".
T' GALLANT 1996 (B)	14.99-18.99	220, 301	14.5		Mid straw colour; traminer-like nose with solids; stripped wine, green and astringent flavour — "tight, green, light on fruit".
YARRA BURN 1996	15.99-19.99	220, 300	14.5		Mid yellow colour; dull, oak essence; obvious palate, lacks texture — "basic pap".
COLDSTREAM HILLS 1996	18.99-25.99	220, 300	14.5		Straw colour; light, sulphurous nose; fresh, young, light, green flavour — "stylish but immature".
KNAPPSTEIN 1995	19.99-21.99	220, 300	14.5		Golden-yellow colour; very ripe nose, butterscotchy; simple chardonnay fruit, high alcohol — "not in balance".
REDBANK Long Paddock 1996 (A)	7.90-11.50	220	14		Pale colour; creamy, caramel, toffee, generous spice aromas; slightly bitter aldehydic palate — "warm and simple".
DEEN DE BORTOLI Vat 7 1996 (A)	7.95-10.95	220, 300	14		Mid yellow colour; dull, varnishy, oak nose; flat, stale flavours — "poor sawn oak".
SEPPELT 1996	8.90-10.99	220, 315	14		Mid yellow colour; bland, plain nose; hot, very simple palate, lacks depth — "unimpressive".
LEO BURING Clare Valley 1996	9.95-11.99	220, 315	14		Yellow colour; butterscotch, caramel, lollyish nose; hot, aldehydic palate masks fruit flavour — "plain and tired".
PENFOLDS Clare Estate 1995	10.90-15.99	220, 300	14		Deep yellow-gold colour; tired, herbal nose; fat herbal palate, no style — "not good".
BROWNS' OF PADTHAWAY Non-wooded 1995	12.99-13.99	220	14		Mid gold colour; overripe kiwi fruit, melon skins, herbal aromas; cooked, marmalade fruit flavours, salty dry finish — "salty and weird".
McLAREN VALE Tatchilla 1996	13.99-15.85	220, 300	14		Pale gold colour; poor aroma, a touch chemical; ugly palate, bad wood — "poor aroma, bad wood, disjointed".
EVANS & TATE Two Vineyards 1996	15.99-18.99	220	14		Mid straw colour; green herbal aroma; lean, green palate — "callow, astringent, hot, unbalanced wine".
BLUE PYRENEES ESTATE 1996 (A)	17.95-25.99	220, 300	14		Light brown colour; dull, light, fresh citrus nose; hot, thin, oxidised palate — "simple, empty and faulty".
YALUMBA Barrel Select Family Reserve 1996	10.99-14.99	220	13.5		Mid yellow colour; aldehydic nose; lean palate with no real fruit — "thin, fruitless and yeasty".
MIXED EMOTIONS			Scores		
YARRA RIDGE 1996	15.99-19.99	220, 300	14 to 18.5		Straw colour; fresh, fruit-driven nose; peachy flavour, some length — "unpretentious, easy drinking".
BANROCK STATION Unwooded 1996	7.99-10.99	220, 300	14 to 18.5		Mid brass; warm fruit and subtle peach aroma; opulent, balanced, complex, fresh flavours — "satisfying wine".
GOUNDREY Unwooded 1997	11.99-14.99	220, 300	14.5 to 17.5		Very pale; green grass, tropical fruit, sauvignon nose; simple stuff, green capsicum and fruit palate — "like a more weighty sauvignon blanc".
BRIDGEWATER MILL 1995	15.99-21.95	220	14 to 17.5		Pale brass; warm, toasty oak nose; some flavour dimension, grapefruit — "some character here".
PENFOLDS Koonunga Hill 1996	7.90-11.99	220, 315	14 to 17.5		Mid yellow colour; sweet honey aroma; warm and sweet flavour — "honest and flavoursome".
WYNDHAM ESTATE Oak Cask 1996	10.49-12.99	220, 300	12 to 17		Mid yellow colour; good fruit aroma, oak lift; classic chardonnay fruit flavour — "attractive, well-made but plain".
ROSEMOUNT ESTATE Reserve 1996	19.99-20.99	220, 300	13 to 17.5		Pale gold; light melon aromas, oaky; oaky essence, palate lacks fruit depth — "acceptable but needs more fruit weight".
SALITAGE Unwooded 1997	16.99-22.95	223, 300	13 to 18.5		Pale straw colour; volatile acidity, nutty, dull fruit nose; fruity, soft, even flavours — "basic but inoffensive".
FIDDLERS CREEK 1996 (A)	6.90-9.99	220, 300	12 to 17		Lemon-straw colour; buttery, musty nose — no agreement reached on palate or overall comment.
PETER LEHMANN 1996	11.90-13.99	220, 300	12 to 16.5		Mid lemon-straw colour; resiny, slightly chemical, tropical aromas; oaky, unbalanced palate with hard finish — "lean, resiny, commercial".

(A) These chardonnays don't state anywhere on the label whether they are oaked or unoaked, but all have some oak in them.

(B) These chardonnays are unoaked. This is stated on the back label, not in the name.

What a corker!

In an attempt to find the ultimate wine drinker's friend, we put 13 corkscrews and cork extractors to the test.

IN BRIEF

■ The old tried and true waiter's friend is still a favourite with regular wine drinkers, although there are easier alternatives for less experienced bottle openers.

THE TABLE IS SET, THE CANDLES are lit and the wine is chilled — and all you have to open it with is a sleek, high-tech contraption that seems to need a degree in engineering to operate it, or a rusty piece of twisted steel which made a home for itself at the back of your kitchen drawer years ago. What you really need is a waiter or the *right* corkscrew.

In our search for the ultimate wine drinker's friend, we opened over 100 bottles of wine, using 11 corkscrews and two cork extractors. Three experts from the wine industry and six regular wine drinkers spent hours wrestling with full bottles of wine, assessing each corkscrew for its instructions, ease of use and level of comfort.

We looked at a selection of widely available corkscrews costing over \$10 — you can buy some cheaper than this, but we wanted to see what you get if you pay more. What we found is that in fact you don't need to pay much more than \$10 for a very good corkscrew — one of our top four costs just \$12, and the other three are \$30 or less. The corkscrews tested are available from department stores and specialty gift or kitchen stores.

Types to choose from

There are a number of different types of corkscrew and cork extractor on the market. We trialed a variety



of the more commonly available ones:

- The single lever (more commonly referred to as a waiter's friend).
- The double or wing lever, with a set of 'wings' that rise as you insert the screw.
- The reverse thread or continuous screw, which only requires one continuous twisting motion to extract the cork.

We also looked at two cork extractors:

- A butler's friend.
- An air-pump cork extractor.

As these cork extractors are different from the more familiar corkscrews, they may take a bit of getting used to — although our results suggested many people wouldn't think it was worth making the effort.

No single type proved a favourite with trialists, so there's no guarantee you'll like a particular corkscrew just because you've used that type before; good design seems to be what makes the difference.

Here to stay

Winemakers are continually experimenting with alternatives to cork, as poorer-quality cork has a significant failure rate. However, it seems nothing will replace the sound of a cork popping from a wine bottle, so even with the introduction of the new synthetic corks, the corkscrew is here to stay — and our trial showed that some of them are even quite friendly.

For people with disabilities

An occupational therapist from the Independent Living Centre evaluated the corkscrews for people with manual or visual disabilities. The following features are worth considering:

- Corkscrews with large, rounded handles make it easier for someone with arthritis or poor hand strength to grip. Narrow handles should be avoided as they require fine movements.
- It's important to have the screw protected in some way, especially for people who are visually impaired — for example, enclosed in a capsule like some of the continuous-screw corkscrews.
- Wing lever corkscrews are problematic as they're difficult to hold onto in the initial stages of inserting the screw.
- A mechanism which allows for easy removal of the cork from the corkscrew is useful.

The **Lazyfish**, **MONOPOL Butler's Friend** and the **CORKY Cork Extractor** were assessed as not being practical for anyone with a manual or visual disability.

PROFILES

THE BEST



Argyle Waiter's Friend \$12

Compact and easy to use, the **Argyle Waiter's Friend** has a long handle, providing good leverage and making extraction easier. This corkscrew was particularly popular with the experts — one of them said it was "easy to see, easy to centre, sufficiently sharp point..."

■ "Good design...easy to use."



Brabantia Corkscrew \$28

The **BRABANTIA** continuous-screw corkscrew was very easy to use, with one trialist declaring it "idiot-proof". A coating on the screw means it's easier to insert, and the cork is automatically ejected from the screw, a "neat feature", according to one of the trialists.

■ "Very easy. Sits perfectly on the bottle..."



Monopol Wing Lever \$22

This was the best of the wing levers; good leverage meant extraction was easy, and comments were particularly favourable about how easy it was to remove the cork from the corkscrew.

■ "A good example of a winged lever style — nice and sturdy, and the way you take off the cork was a plus."



Zyliss Corkscrew \$30

This continuous-screw corkscrew was considered perfect for inexperienced users, with a very comfortable and relatively effortless action. One expert said it had a particularly clean 'bite' and a sharp, easy action. Once again, a coating on the screw makes it easier to insert.

■ "Perfect for inexperienced people, difficult to go wrong."

THE WORST



Corky Cork Extractor \$22

None of the trialists liked this one, with many worried about injuring themselves or others with the long needle that is inserted into the cork. Several couldn't get the cork out at all, and one said it was the worst they'd ever seen.

■ "Not a good prelude to a relaxing drink."



Monopol Butler's Friend \$22

The lay panel found it difficult to use — instead of extracting the cork they often ended up pushing it into the bottle. With experience it might be easier to open bottles of wine with this one, but even the experts found they had to use great care.

■ "Looks nifty in its container, but even its portability doesn't save it."

THE REST

The following are listed in order of the panellists' preference:

Screwpull Continuous Corkscrew \$45

Although one of the easier corkscrews to use, there was concern about the fact that it comes in two pieces, leaving the sharp screw exposed. Not only could you lose one of the pieces, but you or a child could be stabbed by the exposed sharp screw.

■ "The action was easy and effortless..." but "two bits could get lost — more of a fiddle."

Swing-A-Way Wing Lever \$20

A very heavy-duty corkscrew with a drill-like spiral. Some of the trialists found the weight reassuring, while others found it too bulky. Some also had trouble removing the cork from the corkscrew.

■ "Works fine but a little heavy."

Wusthof Trident Waiter's Friend \$45

Small, compact and simple to use, this corkscrew was favoured by the experts. The lay panel thought it looked good but was hard on the hands, needing a lot of pressure to pull the cork out.

■ "Simple, sturdy, well built and crafted..." but "metal digs heavily into your hand — quite painful."

Leifheit Continuous Corkscrew \$30

The screw comes up into the palm of the hand while extracting the cork, making it awkward to use.

■ "Not at all comfortable and would not be easy for a frail person to use."

Lazyfish Cork Extractor \$50

Trialists found this big and cumbersome corkscrew very heavy and hard to centre. A tempting toy-like contraption, there was also concern that children might catch small fingers in the tail.

■ "Great-looking but not as practical as others."

Oxo Good Grips Wing Lever \$17

This was considered to be the worst of the wing levers by at least one trialist. General opinion was that the bulky wings got in the way and it was very difficult to see what was happening because of the black wings and body.

■ "Too big, too cumbersome, requires too many separate actions and alterations of grip."

Pedriini Wing Lever \$17

As with other wing levers, the wings tended to get in the way. This corkscrew also has a very short screw, which chewed up many corks in our trial.



From top: Swing-A-Way Wing Lever; Oxo Good Grips Wing Lever; Screwpull Continuous Corkscrew; Leifheit Continuous Corkscrew; Lazyfish Cork Extractor; Wusthof Trident Waiter's Friend; Pedriini Wing Lever.

■ "Took some time and effort to insert and when inserted tended to 'dig out' cork."



1997 *wrapped up*

Whether you're looking for gift ideas or planning to make the most of the January sales, you should find our compilation of the top performers and Best Buys still available from tests over the last year useful.

And don't forget to look at the test reports in this issue — see chardonnays on page 6, corkscrews (page 12), notebook computers (page 34) and mini hifi systems (page 43).

■ For more information about the test, product features or what to look for when buying, refer to the original article (we give the issue date for each product).

■ Some products, such as hifi VCRs and APS cameras, have a very fast turnover of models. This means many of the models we tested aren't available now, and you'll find new models on the shelves that we haven't tested. Where we still recommend models for these products, it means we think you'll still be satisfied with their quality, though they may not have the very latest features or technology.

■ The prices given are a good target to aim for when shopping around. Most are based on nationwide price checks made between August and November 1997.

Leisure

Sparkling wine

(December 1996)

What better way to celebrate the festive season than with a bottle or two of bubbly? We bought local and imported dry sparkling wines ranging in price from around \$5 to \$150, and a panel of six experts rated them for appearance, 'nose' and taste. We also asked a panel of ordinary wine drinkers if they liked the experts' choices.

The good news is that you don't have to pay top dollar for a decent drop — in our 'mixed dozen' on the right, some of the top sparkling wines in each category were among the cheapest.



THE CHOICE MIXED DOZEN

Our original mixed dozen included three wines with vintages that are no longer available, so it's now the mixed nine. The products marked **\$** are good value — buy two of each to make up the dozen!

Up to \$16

SIR JAMES Cuvée Brut	\$13.60
\$ MATTHEW LANG & CO Brut Cuvée	\$6
ANDREW GARRETT Pinot Noir Chardonnay Brut NV	\$12.95
\$ GREAT WESTERN Imperial Reserve	\$6
SEPPELT Sunday Creek Pinot Noir Chardonnay	\$10.50

More than \$16

GH MUMM Cordon Rouge 1988*	\$55
\$ SEAVIEW EDWARDS & CHAFFEY Pinot Noir Chardonnay 1992	\$21
TAITTINGER Brut Reserve	\$45
BOLLINGER Special Cuvée Brut	\$56

* The experts liked it, but the lay panel wasn't keen.



Electronic organisers

(December 1996)

An electronic organiser could well be the ideal way to keep your busy life in order — or that of the friend who forgot your birthday ... again.

We looked at the features and functions of elec-

tronic organisers with 32 to 66 kilobytes (kb) of memory and a price tag of less than \$200. When you're shopping for an organiser, make sure it's not too big to carry around, that you can type comfortably on it with one finger, and the screen is large enough to display at least four lines of text. The organisers in our *What to buy* list rated well for both ease of use and performance.

WHAT TO BUY

CASIO SF-5300 (64 kb)	\$198
SHARP ZQ-2500 (34 kb)	\$119
SHARP ZQ-2700 (64 kb)	\$139
SHARP PB-SA1 (32 kb)	\$140

APS cameras

(February 1997)

The Advanced Photo System (APS) has been touted as a breakthrough in photography. Thanks largely to its easy-to-use 'smart' film, APS offers greater versatility in picture formats and a number of other print-making features not usually provided by 35 mm cameras.

Our tests found that the APS cameras produced pictures of similar quality to 35 mm photography. At the moment it's more expensive, though, and film stocks and processing facilities may be more limited. However, this is set to change as APS becomes more popular.

WHAT TO BUY*

Autofocus with fixed focal length lens	
KODAK Advantix 3600ix	\$299
KONICA Super Big Mini BM-S 100	\$300

Autofocus with zoom lens	
FUJIFILM Fotonex 300 Zoom	\$695
FUJIFILM Fotonex 250 Zoom	\$459

Autofocus zoom SLR (single-lens reflex)	
FUJIFILM Fotonex 4000 SL	\$999

* APS features and technology change quickly, and as this test was done over a year ago, you may find that some newer models now in stores offer better features and performance than those in our tests.



Entertainment

Hifi VCRs

(May 1997)

To make the most of your large-screen stereo TV (see right), especially if you're interested in home theatre, you'll need a hifi VCR. All 12 of the hifi videos we tested had very good sound and picture quality — the differences lie in the features and ease of use.

The features offered on VCRs change quickly, and virtually all those tested have been, or will shortly be, superseded by new models. Only two are still available, and although they didn't rank near the top of the table, they performed quite well.

MODELS STILL AVAILABLE

NEC VH-104	\$599
GE VTH 506	\$799

(The prices quoted are recommended retail, and you may find them for less.)



Large-screen stereo TVs

(January 1997)

A large-screen TV can be connected to your hifi system for a home theatre experience (see CHOICE, January 1997, for more about home theatre). But make sure you've got enough room for one — you should be able to sit about four metres from the screen, and if you're using hifi speakers you'll need a room about five metres long and similar in width.

We tested ten 68 cm stereo TVs for performance and ease of use. There were noticeable differences in sound and picture quality, and the recommended models scored well for both.

WHAT TO BUY

SONY KV-T295Z1	\$1595
PHILIPS 29PT468 A/75R	\$1295
SAMSUNG TV-6865T	\$1299
PANASONIC TC-29SU61A	\$1595



Espresso machines

(February 1997)

In Italy, it's just not done to drink cappuccino after mid-morning. The rest of the day is devoted to black coffee, preferably espresso. Australians drink what they like when they like, so you won't go wrong at a dinner party with a machine which makes a decent espresso *and* froths milk for cappuccino lovers.

We tested a range of pump- and steam-pressure espresso machines, and found that while all of them were able to froth milk, only the pump-pressure machines could make a true espresso. But even the best machine won't guarantee you a perfect cuppa — you still need the right coffee in the right amount, and lots of practice.

WHAT TO BUY

SUNBEAM Club Cappuccino 120	\$209
(pump — recommended for making espresso and cappuccino)	
DELONGI Caffè Parma Bar 6	\$99
(steam — OK for cappuccino and other milky drinks, but not recommended for making espresso)	
RUSSELL HOBBS Café Continental 3344	\$149
(steam — OK for cappuccino and other milky drinks, but not recommended for making espresso)	

Breadmakers

(May 1997)

If you like the idea of waking up to the smell of freshly baked bread, a breadmaker could be for you. And if you make at least five loaves a week, you'll recover the cost of even the most expensive machine in a year.

All the machines we tested were capable of making a good loaf — provided you use the right ingredients and put in plenty of practice — so we ranked them on ease of use. For more information about features and breadmaking tips, see CHOICE, May 1997.



WHAT TO BUY

SUNBEAM BM001 Bakehouse	\$299
BREVILLE BB200 Bakers Oven	\$219
PANASONIC SD-200 Bread Bakery	\$299
SANYO SBM-201 The Bread Factory Plus	\$249



Food processors

(July 1997)

We tested food processors with a claimed capacity of at least 500 mL, and a price tag of up to \$150.

Although they tend to be a hassle to clean, a food processor can still be useful — especially if you regularly chop, slice or shred large amounts of vegetables, blend soups or make pastry.

WHAT TO BUY

BLACK & DECKER Ultima FP 35	\$100
KENWOOD Gourmet FP 310	\$151
MOULINEX Masterchef 470 B67	\$100
PHILIPS HR 2830/B Compacto	\$100

(The prices quoted are recommended retail, and you may find them for less.)

Fridges

(June 1997)

These days, the cost and energy efficiency of frost-free fridges is comparable with cyclic-defrost models — and you'll never have to defrost the fridge again.

We tested 400 L fridges and found that they all performed well. Just keep an eye out for the star rating — energy costs can add substantially to the long-term cost of your fridge.

WHAT TO BUY

FISHER & PAYKEL C420T Softline (cyclic-defrost)	\$1149
HOOVER HE423UF Contour (frost-free)	\$1495
SAMSUNG SRG-V43 Cool Tech Type A (frost-free)	\$1095





Upright electric ranges

(March 1997)

An electric range is a stove with the oven, grill and cooktop combined in one compact unit. Although separate ovens and cooktops are becoming more popular, they tend to be more expensive, and ranges might be the only choice for a small kitchen or a tight budget.

Of the eight models we tested, six had some kind of manufacturing problem, including those in the *What to buy* list (for details see CHOICE, March 1997). However, the manufacturers of our recommended models say the problems have since been fixed.

WHAT TO BUY

FISHER & PAYKEL Multifunction RA535MEW	BEST BUY	\$949
CHEF Premier EPRUFW		\$1110
CHEF Sapphire ESPUAFCW		\$1444
CHEF Sapphire ESPUMFZW		\$1176

(The prices quoted are recommended retail, and you may find them for less.)



Dishwashers

(July 1997)

When you're buying a dishwasher, it might be worth taking some of your large dinner plates and wineglasses with you — you want to be sure they'll fit without crowding or hitting the spray arms.

We looked at the water and energy efficiency and performance of the dishwashers. All those in the *What to buy* list washed equally well, although the AEG Öko Favorit 6050 used the least water and energy. The AEG and the ASKO 1605 were the only dishwashers which would fit tall glasses and large plates at the same time.

WHAT TO BUY

AEG Öko Favorit 6050		\$1699
DISHLEX Global 300	BEST BUY	\$1059
MIELE G664		\$1399
ASKO 1605		\$1299
SMEG SA425		\$1880

(The prices quoted are recommended retail, and you may find them for less.)

Microwave ovens

(June 1997)

Compact microwaves (up to 29.9 L) are ideal for one- or two-person households — a great gift idea for newlyweds or kids leaving the nest.

Some microwaves have an automatic cook (or reheat) feature — you choose a code for the type of food and the oven selects the cooking time and power level.

We put compact microwaves with a capacity of around 25 L through their paces by cooking, defrosting and reheating a range of foods. They all gave good results, although the automatic programs didn't always know best — the results for three ovens were better when we set them manually, including the PANASONIC in our *What to buy* list.

WHAT TO BUY

PANASONIC NN-S546WA	\$299
PALSONIC PMO-750	\$229

(The prices quoted are recommended retail, and you may find them for less.)



Toasters

(February 1997)

The constantly evolving world of breadmaking means we can now enjoy a huge range of high-quality bread and bread-type products. Toaster technology, on the other hand, seems to have been bypassed by evolutionary forces: half a century after pop-up toasters were invented, the basic components remain essentially the same — and it's still almost impossible to get the perfect piece of toast.

We tested 16 toasters with wide or variable-width slots that are designed to toast bread, muffins and crumpets, and found most left a lot to be desired. The three in our *What to buy* list passed our safety tests and scored reasonably well for performance and ease of use.

WHAT TO BUY

SPEEDIE ST58	BEST BUY	\$29
KAMBROOK KT91	BEST BUY	\$30
SUNBEAM TA115		\$57



Baby products

Pramettes

(September 1997)

A pramette is a combination pram and stroller and, as it's suitable for babies through to toddlers, saves you the expense of buying both.

We tested some widely available models for durability, manoeuvrability, ease of use and safety. Higher prices don't always guarantee quality and performance — in fact the three top models were also the cheapest, while the two most expensive that we tested failed our safety tests.

WHAT TO BUY

BABYCO Richmond*	\$150
BABYCO Waverley II*	\$160
BABYCO Fresco*	\$170
BABYCO/JANE Ribron*	\$350
STEELCRAFT Seville	\$249
STEELCRAFT Trieste	\$299

* To find your nearest Babyco stockist call Babyco on (03) 9764 3333.



Household



Washing machines

(April and September 1997)

A front-loading washing machine may cost more upfront than a top loader, but their energy and water efficiency means you'll save on long-term running costs. Generally we find there's not much difference in dirt removal performance between top and front loaders. But front loaders tend to score better for water, energy and spin efficiency and gentleness, which puts them ahead in overall scores.

We did two washing machine tests for this year, and the top models were all front loaders. ■ In April we reported on 15 top-of-the-range washing machines, which cost over \$1200 when we bought them (some have gone down in price since then). We found that while expensive machines offer more features, they don't necessarily give better washing results, though they all performed well.

Air conditioners

(November 1997)

Reverse-cycle air conditioners not only cool your house in summer, but warm it in winter — and use less energy than other electric heaters.

We tested six split-system models (which means the air outlet is inside the house, and the noisy compressor is outside) with enough power to cool or warm an open-plan living area (around 6.5 kW).

WHAT TO BUY

MIELE Novotronic W 830	\$1799
OMEGA CW 1267	\$1295
ARISTON AL 1046T	\$1295
BENDIX WMB 1062M	\$1395
AEG Öko Lavamat 538	\$1450
ASKO 10505*	\$1398
BOSCH WFB 1605	\$1095

* 4.5 kg capacity; all the rest are 5 kg.

Best of the top loaders

HOOVER Boss 2320 (7.5 kg)	\$1099
GE WISR309CTWW (7.5 kg)	\$1195

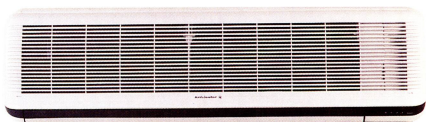
■ In September we looked at machines under \$1200 with a stated capacity of 5 to 6 kg, and again, they all performed well.

BEST BUYS

GE WWH6504 (5 kg)	\$999
HOOVER 1000F/1100F (5 kg)	\$995/\$999

Best of the top loaders

HOOVER 2300L (6 kg)	\$895
HOOVER 201M/215M (5 kg)	\$699
SIMPSON Concorde 541/Esprit 500 (5 kg)	\$679/\$699



WHAT TO BUY

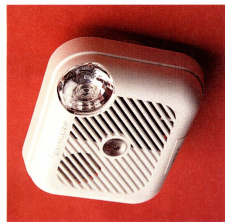
KELVINATOR KSR25C	\$2399
CARRIER 53QN1022	\$2850
FUJITSU AST24R5G	\$2889

Smoke detectors

(October 1997)

Smoke detectors cost as little as \$10 — a stocking-filler that could save a life. You don't have to buy the most expensive model. Just choose the features you want — our article in CHOICE, October 1997, describes the various features available — and buy the cheapest with Standards Australia approval.

We tested widely available smoke detectors for ease of use. Differences mainly come down to installation and changing the battery, which you don't do very often.



WHAT WE TESTED

(In order of ease of use)

Ionisation alarms

RINGGRIP RSA-IB	\$13
RINGGRIP Escape Light RSA-IL	\$40
RINGGRIP RSA-IS	\$28
ARLEC SD400	\$15
KAMBROOK SD 29	\$13
UNIVERSAL Smoke Signal SS-750C	\$10
UNIVERSAL Smoke Signal SS-755C	\$15

Dual ionisation alarms

These alarms should prevent nuisance alarms caused by atmospheric changes such as humidity.

FAMILY GARD FG888DCAUS	\$10
FIRST ALERT SA150TTCAUS	\$36
FIRST ALERT SA67DCAUS	\$13
FIRST ALERT SA88TTCAUS	\$25
FIRST ALERT SA91TTCAUS	\$20
QUELL QSD 600B	\$30
QUELL SA900	\$30
WORMALD Alarm Silencer WRS100	\$26
WORMALD General Purpose C30M	\$14
WORMALD Extra Life Battery WRS102	\$30
WORMALD For stairs and hallways WRS101	\$37

Photoelectric Alarm

RINGGRIP RSA-PC	\$60
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Irons

(June 1997)

Almost all the mid-priced steam irons we tested did their job — removing creases and wrinkles. The main difference between them was their ease of use.

The SUNBEAM Pro-Steam SR410 we tested is to be replaced by the SR1300. The graphics and packaging are different, but performance should be unchanged. You may still find the SR410 in some stores.

WHAT TO BUY

SUNBEAM Pro-Steam SR410	\$59
BLACK & DECKER Quick 'n Easy X480	\$60
MOULINEX Chromate 44 Silk Plus AX8	\$50
PHILIPS HI 212	\$39

Communications

Cordless phones

(April 1997)

A cordless phone has a radio link between the handset and the base station, which means you can keep the handset with you as you move from room to room or out to the garden. The base station must be connected to the phone socket and mains power, and may be unusable during a power cut.

We tested 15 costing less than \$250, and all were OK for most domestic situations. Unfortunately only one of the cordless phones from our original *What to buy* list is still available.

WHAT TO BUY

UNIDEN XC340	\$169
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Fax machines

(October 1997)

Plain-paper fax machines offer a range of features that make them ideal for the small or home office — for under \$1000. The models we tested came with a fax/phone switch, so you can plug them into your phone socket and receive both calls and faxes. Some even function as a scanner and printer for your computer.

The main difference between the models we tested was how easy they were to use and the quality of sent and received pictures.



WHAT TO BUY

SAMSUNG SF 4000*	\$899
CANON FAX-B100	\$899
BROTHER FAX-1020	\$649**
PANASONIC KX-F1000AL	\$799

* Only buy this one if you're connected to a digital exchange — phone 13 20 00 or 13 22 00 to find out.

** Brother tells us it has reduced the normal selling price to \$599.

Garden and DIY

Drills

(August 1997)

If you're after an electric drill, impact drills offer more versatility than regular models — as well as spinning around, impact drills have a hammer action so you can drill through all kinds of material, including stone, brick and concrete.

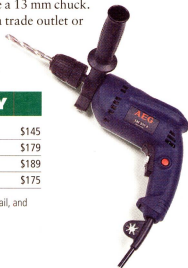
While the AEG SBE 500 R was the top performer, it only has a 10 mm chuck — not big enough for a standard half-inch (12.7 mm) drill bit. The others have a 13 mm chuck.

You might have to go to a trade outlet or power tool specialist for some of the drills, although MAKITA is widely available.

WHAT TO BUY

AEG SBE 500 R	BEST BUY	\$145
AEG SBE 570 R		\$179
RYOBI PD-191VR		\$189
MAKITA HP 1501K		\$175

(The prices quoted are recommended retail, and you may find them for less.)



Petrol mulching lawnmowers

(November 1997)

Mulching mowers shred the cut grass finely as they mow, and leave this mulch on your lawn. Apart from returning valuable nutrients to the soil, which means you'll need less fertiliser, mulching also reduces the need for watering.

We tested 10 petrol-powered mulching mowers, and the models in the *What to buy* list all cut short and medium-height grass well. They also did a reasonable job with mulching, apart from the VICTA, which tended to leave the mulch in clumpy rows.

WHAT TO BUY

MASPORT XM50 Mulcher	\$539
FLYMO FM206	\$549
HUSQVARNA 51M*	\$539
MASPORT A81988 Combo	\$599
VICTA MCA201D Mulch or Catch 4	\$589

* 51 cm width of cut; the others are all 45 to 47 cm.



Petrol lawn trimmers

(January 1997)

Lawn trimmers spin a nylon line at high speed to cut through grass, weeds and other plants. They're great for clearing long grass or trimming edges around trees, paths and flowerbeds.

We tested curved-shaft petrol lawn trimmers costing up to \$250. It seems manufacturers can't make a powerful performer that is also easy to use. For light work, such as trimming in a well-maintained yard, the WEED EATER XT25 Feather Lite is a good choice — easy to use, though not particularly powerful. The others in our *What to buy* list are more powerful but not quite so easy to use.

WHAT TO BUY

RYOBI Weed Wasp RWT2855S	\$221
STIHL FS36	\$225
MCCULLOCH PM1	\$220
WEED EATER XT25 Feather Lite	\$189

Ladders

(January 1997 — and see the update in this issue, page 26)

Earlier this year we reported that less than half of the 19 ladders we tested passed our safety tests. Two manufacturers, OLDFIELDS and CKENNETT (which makes WELBILT ladders) informed us that they'd subsequently made changes to some of their ladders to make them safer. So we retested them, and they all passed the tests they'd previously failed.

If you're after a ladder, the update in this issue lists the ladders we recommended in January, plus the models we retested — see page 26 for *What to buy*.



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26th SUBSCRIBER Draw

Our 26th draw will be held on January 9, 1998. Two lucky people will win prizes from tests published in CHOICE in April and May 1997.

For new subscriptions and renewals received October 1 to December 31, 1997.

These are products we bought for testing, so you won't be the first to turn them on or set them up. But we'll cover any service problems with a CHOICE warranty that'll match the manufacturer's — just as if you'd bought them new.

All new CHOICE subscriptions and renewals received from members and personal subscribers (including donors of gift subscriptions) by December 31 will go into the draw, unless of course you indicate you don't want to be included.

Subscriber draws are held every quarter. If you're on a two-year subscription you'll be entered on your first anniversary as well as when you renew.

First prize

Washing machine valued at up to \$1999, CHOICE, April 1997



Second prize

Breadmaker valued at up to \$299, CHOICE, May 1997

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What not to buy for Christmas

Is your kitchen full of small

appliances you wish you'd never bought? We asked over 200 subscribers to tell us about the items that lurk in their kitchen cupboards — which ones are worth buying?



CHIRSTMAS SEEMS TO BRING OUT the worst in shops and kitchen appliance manufacturers. Every new gadget on the shelves is going to save you time and create tasty food for your grateful family. Can our judgment really get so clouded by it all that we seriously consider buying Mum that egg poacher with the built-in clock radio?

To counteract the marketing hype, we spoke to over 200 CHOICE readers to find out which kitchen gadgets they have, which they find useful and which spend their lives at the back of a cupboard.

The kitchen appliances in the graph on page 25 are the ones that were owned by the most people

in our survey. We only included things more than 20 people owned — that's why some of the more recent innovations don't appear in this graph.

We didn't include larger appliances like microwaves and everyday things like toasters and kettles because they're used on a regular basis in most kitchens. We wanted your comments on the kind of appliances you might have had for 20 years or were given last year for Christmas — old faithfuls like food processors and electric frypans through to new fads such as espresso machines. We hope they'll help you decide what *not* to buy your family and friends for Christmas this year.

Continued overleaf

IN BRIEF

■ If you don't want a gadget to gather dust in a cupboard, think carefully before you buy about whether it's really likely to fit in with your lifestyle and kitchen habits. For example, will its usefulness offset the hassle of washing it up?

■ Our readers' comments make it clear that some models of the same gadget are better designed and easier to use than others. Take a good look before you buy to check that attachments are easily removable, bowls are big enough, washing up will be easy, etc.

Do you really need a gadget fix?

If you suddenly find yourself standing in front of shelves full of interesting-looking kitchen gadgets, ask yourself the following questions and you might leave the shop with your wallet still intact.

- **Would it suit your lifestyle?** Would you (or the person you're thinking of buying it for) really use it often? For example, do you have lots of parties where crushed ice is important, or did you stop using crushed ice in the '60s?
- **Do you have the space in your kitchen?** A number of people complained that an appliance was too bulky and heavy. If you don't have bench space to keep it handy on, it's likely to spend its life at the back of a cupboard.

■ **How easy is it to clean?** The hassle of cleaning electrical kitchen appliances was a common complaint in our survey. If you have to dismantle the whole thing after each use to clean up, you may end up choosing not to use it just to avoid the hassle. Check that parts can be removed to be washed and whether they can go in the dishwasher.

■ **Does it really take that much extra effort to do it the 'old-fashioned' way?** A number of people felt it was easier to prepare their food without gadgets because fiddling with attachments and the clean-up were too much bother. Don't assume that an electrical appliance will be the fastest solution.

Positives and negatives

The following are some of our readers' comments on the pros and cons of some of their gadget purchases or gifts. While it's clear from some of the comments that people have found some brands or models of the same appliance more satisfactory than others, the comments should still give you an idea of why people liked or disliked their gadgets, as well as an idea of what to look out for when buying.

Electric wok

(68% use it often and 14% sometimes — easily the highest score for frequency of use.)

- + "It makes wonderful sauce."
- + "You can cook a range of food in one appliance."
- + "It's a great way to do vegies."
- + "It's great to clean."
- "I'd prefer to cook with gas because the electric wok doesn't get hot enough and the thermostat doesn't hold constant heat for traditional wok cooking."
- "It heats up in the wrong spot so the food burns."
- "The non-stick lining is peeling off and it's only two years old."

Jaffle/sandwich maker

(33% use it often, 46% sometimes.)

- + "It's the best gadget in the kitchen. You can make snacks that aren't fatty, they're filling and it's easy to clean."
- + "It's good for when the grandchildren visit."
- + "It makes good snacks."
- "Ours isn't deep enough, so the filling oozes out."
- "We should have bought one where you can take the insert out because it's hard to clean."
- "The jaffle maker is too small compared to the size of the slices of bread."
- "It sticks in the centre so you have to put lots of butter on the bread."



Coffee grinder

(38% use it often, 25% sometimes.)

- + "I use it all the time. I like to grind different-flavoured beans."
- + "It grinds quickly and I've dropped it twice and it's still going strong."
- "Washing it is difficult."
- "I used it for grinding spices, but now it stinks of them so I can't use it for anything else."
- "I buy ground coffee because it's inconvenient to grind so much coffee."

Electric can opener

(A high score of 50% for being used often — but 23% never use it.)

- + "Very safe — you can't cut yourself."
- + "Easy to use and clean."
- + "It also has a knife sharpener."
- "Hard to get started — to line the can up with the blade."
- "Quicker to get the manual one out of the drawer."
- "Cheap 'no-name' cans don't work on it — it doesn't catch their lip."

Handheld blender

(28% use it often, 41% sometimes.)

- + "It's great for putting straight into a dish that you're cooking in — saves washing up bowls."
- + "It's convenient for mixing sauces and getting the lumps out of gravy."
- + "It's good for cakes."
- + "It's excellent to purée pumpkin soup."
- "The attachments sometimes fall off."
- "I have trouble finding the gadgets that fit into it."
- "It takes forever to whip cream and it doesn't do a great deal of volume. I'd rather have a handheld mixer."

Benchtop food processor

(While 21% use it often and 35% sometimes, as many as 39% use it only rarely.)

- + "I bought it because I have trouble chopping."
- + "I cook for a living, so I can't live without it."
- + "It cuts chopping time in half, which is good because I do a fair bit of cooking."
- "It's fiddly and there are a lot of different attachments to wash."
- "I found the liquids oozed out and it left food in the bottom under the blades which was not mixed at all."
- "It's very noisy."
- "The strength of the grater blade was not very good. It cracked after six months."

Electric knife

(20% use it often, but 36% only sometimes and 35% rarely.)

- + "It's speedy and very good for cutting things quickly."
- + "I have arthritis, so cutting is a lot easier."
- + "It's handy for Sunday roasts."



- + "I only use it for bread — it makes it a lot easier to cut fresh, hot bread."
- "It tears the meat."
- "The blades pop out if they're not pushed in correctly."
- "My husband uses it, but I'm terrified of it."
- "I've never used it. It's still in the box."
- "I just prefer sharp knives — being an ex-slaughterman."

Juicer

(25% use it often, but 37% only rarely and 16% never.)

- + "If you're into healthy food you can buy fresh fruit and have the best juice without chemicals."
- + "I use it every day and just pop it in the dishwasher to clean."
- + "You can save money if you use it regularly."
- "It's hard to clean and messy."
- "You need some strength to manipulate it and hold the orange on."
- "You need a lot of fruit to make a small quantity of juice."
- "I don't have the time to use it."

Deep-fat fryer

(25% use it often, but 34% only rarely and 21% never.)

- + "I use it all the time. It's very convenient."
- + "It's good for chips."
- + "It controls the temperature better than on the stove so it's handier and safer."
- "We don't use it now because we've gone off fatty foods."
- "It makes a mess, the fumes go all over the kitchen and it's difficult to wash."
- "The children have grown up so we don't use it now."

Crockpot (slow cooker)

(21% use it often, but 37% only rarely and 16% never.)

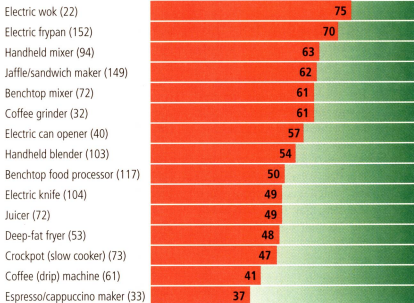
- + "Very useful. I put the food on before I go to work."
- + "Gives you extra time. Cooks overnight or while you are out all day."
- + "We use it all the time in winter."
- "The food is not as tasty as food cooked on the stove."
- "The ones where you can take the bowls out to wash are better."
- "I haven't used it in five years."

Gadgets on trial

The readers we spoke to were all asked to rate their kitchen gadgets in terms of how often they use them, how useful they find them, if they would recommend them to a friend and if they felt the appliance was good value or a waste of money. We combined these results to get an overall 'usefulness' score out of 100. The results are shown in the graph below; the numbers in brackets show how many people in the survey owned each product.

Appliance*

Usefulness score (%)



*We asked about breadmakers, rice cookers and health grills too, but they didn't make it into the list because not enough subscribers owned them to give us a meaningful score.

Coffee (drip) machine

(21% use it often, but almost half — 48% — only use it rarely.)

- + "Makes nice fresh coffee and there's more of a choice of flavours."
- + "It has an automatic timer and it's great."
- "The coffee doesn't seem hot enough."
- "I only use it if guests come over."
- "It takes too long compared to instant."

Espresso/cappuccino maker

(While 21% use it often, 24% never use it at all.)

- + "It's excellent. It does what the \$500 machine does."
- + "It's good fun. We use it for visitors."
- + "It makes a proper cappuccino."
- "It's hard to clean."
- "You don't get as much froth as you do at the shops."
- "It took a while to get used to. We've mastered it now, but it is an art."

Our survey

We telephoned over 300 subscribers nationally to ask them about their small kitchen gadgets. Our results are based on interviews with just over 200 subscribers — thanks to all those who participated.



A big step up

Some ladder manufacturers reacted promptly to the safety concerns raised by CHOICE. Thanks to some simple design changes, we can now recommend more of their models.

AFTER THE DISAPPOINTING results of our last ladder test (CHOICE, January 1997), where we could recommend less than half of the 19 models, we contacted the manufacturers and asked them whether they planned to modify the models which failed our tests.

OLDFIELDS and C KENNETT (WELBILT) told us about design changes for some of their ladders, which would improve their safety without making them completely new models. We put these claims to the test and checked whether the new versions of four stepladders, two step-extension ladders and one multi-purpose ladder now passed the tests the older models had previously failed or performed poorly in (see notes 1 and 2, right, for details).

Although some of the modifications appeared rather simple (for example, the fitting of two pieces of rope as diagonal spreaders on stepladders, or a wire hook

as an additional catch on a step-extension ladder), they proved very successful.

All the retested ladders passed all the tests the older versions had failed or performed poorly in, and can now be recommended as safe (see the table for details).

OLDFIELDS and C KENNETT deserve credit for reacting so quickly and efficiently to fix the shortcomings of their products as pointed out by CHOICE.

The *What to buy* list includes the ladders already recommended in our January 1997 test, plus the modified models that we retested for this update.

BAILEY and OLDFIELDS ladders should be fairly easy to find. WELBILT is one of the major brands in the ladder market, but its models are only available in NSW, SA, Tasmania and Victoria.

However, you may have to order any of the recommended models through a hardware shop or department store.

WHAT TO BUY

Stepladders (in alphabetical order)

BAILEY Hercules 6' FS20176	\$70
BAILEY Meteor FS20225	\$112
BAILEY Omega FS20124	\$148
OLDFIELDS Pro series P56	\$220
OLDFIELDS SM6 (ropes/metal)	\$109/\$141
OLDFIELDS T56 (ropes/metal)	\$155/\$155
WELBILT P56 Domestic step	\$112
WELBILT SL6 Industrial step	\$154

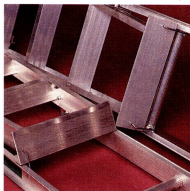
Step-extension ladders (in alphabetical order)

BAILEY Comet 6' FS20256	\$165
BAILEY FS20259	\$218
OLDFIELDS TDP6	\$165
WELBILT DP6 Dual Purpose Step	\$184

Multi-purpose ladder

OLDFIELDS TMP13	\$330
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For details on the different types of ladder, their features and the dos and don'ts of using a ladder, see CHOICE, January 1997, page 6.



Three of the four modified stepladders (the Oldfields SM6 and T56 and the Welbilt P56 Domestic step) now have diagonal spreaders. The first modification on the two Oldfields was the fitting of ropes, which were then replaced by metal spreaders (pictured is the Oldfields SM6, above left, with the old model on the left in the photo) — you'll find both versions in shops. The new Welbilt has diagonal ropes.

On the modified Oldfields Pro series P56 (above right), the side-arm spreaders were reinforced with thicker, larger washers. It also has an additional brace between the back legs (the ladder on the left).

All the modified stepladders passed the 'walking test' before and after the durability test (see notes 1 and 2, right) and are now safe ladders.

With step-extension ladders, weak catches (like those we found on the old Welbilt DP6 Dual Purpose Step and Oldfields TDP6 in January) can be dangerous in extension mode. If you stand above the support point and bend forward, you'll apply pressure on the middle of the ladder — possibly enough to snap weak catches open.

Both the new Welbilt (above left) and the Oldfields (above right) now have improved catches that satisfied our safety requirements. The two Bailey step-extension ladders tested in January also performed well in this test.

The Oldfields TDP6 failed the standard side-sway and permanent-set tests in January. However, the now much sturdier catches also improved its performance in these tests — it passed both of them.

LADDERS

Brand / model	Manufacturer / distributor	Origin	Warranty (years)	Target price* (\$)	1 Passed all tests (before durability test)	2 Passed walking test (after durability test)
STEP LADDERS (recommended, in alphabetical order)						
BAILEY Hercules 6' FS20176 (A)	Hills Industries	Australia	5	70	✓	✓
BAILEY Meteor FS20225 (A)	Hills Industries	Australia	5	112	✓	✓
BAILEY Omega FS20124 (B)	Hills Industries	Australia	5	148	✓	✓
OLDFIELDS Pro series PS6 (C)	Oldfields	Australia	'lifetime'	220	✓	✓
OLDFIELDS SM6 (C) (D)	Oldfields	Australia	not stated	109 (L)	✓	✓
OLDFIELDS TS6 (C) (D)	Oldfields	Australia	not stated	155	✓	✓
WELBILT PS6 Domestic step (C)	C Kennett	Australia	not stated	112	✓	✓
WELBILT SL6 Industrial step (A)	C Kennett	Australia	not stated	154	✓	✓
Not recommended (in alphabetical order)						
BAILEY Astron 6' FS20004 (E)	Hills Industries	Australia	5	105	X (M)	X
BAILEY Tradesman FS20023 (E)	Hills Industries	Australia	not stated	170	✓ (N)	X
DAYTEK 6' Step ladder (F)	Dayton Tooling	Australia	not stated	72	X (M)	X
STEP-EXTENSION LADDERS (recommended, in alphabetical order)						
BAILEY Comet 6' FS20256 (A)	Hills Industries	Australia	5	165	✓	✓
BAILEY FS20259 (A)	Hills Industries	Australia	5	218	✓	✓
OLDFIELDS TDP6 (C) (G)	Oldfields	Australia	not stated	165	✓	✓
WELBILT DP6 Dual Purpose Step (G)	C Kennett	Australia	not stated	184	✓	✓
MULTI-PURPOSE LADDERS (recommended)						
OLDFIELDS TMP13 (C)	Oldfields	Australia	not stated	330	✓	(P)
Not recommended (in alphabetical order)						
HOMEMAKER (H)	K Mart	Taiwan	not stated	ns	X	(P)
SILVER ORIENT Multi Purpose (J)	Target	Taiwan	3	ns	X	(P)
WELBILT Brenette AB4 (K)	C Kennett	Australia	not stated	ns	X	(P)

* Prices shown are a good target to aim for, based on a national price survey in September 1997.

ns Updated prices not surveyed.

- (A) Not retested: This model was recommended in CHOICE, January 1997, and, according to the manufacturer, hasn't been modified.
- (B) Not retested: This model was recommended in CHOICE, January 1997, and, according to the manufacturer, will be discontinued (but you may still find it in shops).
- (C) Retested: This model failed tests in CHOICE, January 1997, and has been modified since.
- (D) Available with rope or metal cross-bracing; both types passed our tests.
- (E) Not retested: This model wasn't recommended in CHOICE, January 1997, and, according to the manufacturer, hasn't been modified yet.
- (F) Not retested: This model wasn't recommended in CHOICE, January 1997, but the manufacturer didn't respond to our survey regarding modifications.

1 Passed all tests (before durability test)

A tick in this column means the ladder passed all our tests before the durability test; a cross indicates it failed at least one requirement.

We tested the ladders according to the current and previous Australian standards, and carried out the following tests (among others):

- Walking test (all ladders): Most ladder accidents don't occur because a ladder collapses under a person, but because people fall off them — for example, when a ladder moves unexpectedly or 'walks' (twists and shifts its footing). The Australian standard contains a test that measures the walk of a ladder.
- Permanent-set and side-sway tests (step-extension and multi-purpose ladders): These tests

tell you about the tendency of a ladder to bend when used in extension mode.

■ Single-joint lock test (multi-purpose ladders): This severe test checks whether the hinges are strong enough to support a person even if the ladder is set up incorrectly with one middle hinge unlocked. To pass the test, a ladder mustn't collapse under the test load but may suffer damage that leaves it unusable.

We think the Australian standard for ladders is a good measure for the safety of a ladder. Models that didn't comply with all requirements are therefore not recommended, although the standard isn't mandatory for manufacturers.

We also checked that the catches of step-extension ladders can withstand an adequate force

in extension mode. The standard doesn't include such a test — we think it should.

After the performance tests, all step and step-extension ladders were tested for durability by applying a 130 kg load on a middle tread 1000 times, while the ladder was standing on uneven ground.

2 Passed walking test (after durability test)

A tick means the ladder passed the walking test after the durability test and didn't lose its rigidity to any great degree. A cross indicates the ladder failed the walking test and can't be recommended, even if it met all performance requirements before the durability test: it may become less rigid — and therefore less safe — with age and use.



Thanks to modified hinges, the new Oldfields TMP13 multi-purpose ladder (on the right in the photo) this time passed the permanent-set test and even the severe single-joint lock test, both of which it failed before.

- (G) Retested: This model had weak catches in extension mode when tested in January 1997.
- (H) Not retested: This model wasn't recommended in CHOICE, January 1997, and, according to the manufacturer, has been replaced by a new model. However, you may still find it in shops.
- (J) Not retested: This model wasn't recommended in CHOICE, January 1997, and, according to the manufacturer, will be replaced by a new model.
- (K) Not retested: This model wasn't recommended in CHOICE, January 1997, and, according to the manufacturer, will not be modified.
- (L) This price is for the model with rope spreaders; the same model with metal cross-bracing should cost \$141.
- (M) Failed the walking test before the durability test.
- (N) But it passed the walking test only marginally before the durability test.
- (P) Not tested for durability because of damage sustained in the single-joint lock test (see note 1).



For most travellers, renting a car is an out-and-out convenience. But you need to be aware of the insurance risks when you sign the contract — they're much higher than for driving your own car.



IN BRIEF

- The terms and conditions in the small print of rental car contracts could be placing you at risk of greater expense than you might expect.
- It's important to understand the nature of the insurance coverage — the conditions and the exceptions — before you take responsibility for a rental car. It's far from the comprehensive coverage you're likely to have for your own car.

The financial risks of renting a car

WHEN YOU SIGN AN AGREEMENT to rent a car, you may not check everything you should about the terms and conditions of the contract. If all goes well and you return the car in the same condition you rented it in, this oversight might not matter.

However, if the unfortunate happens and the vehicle is damaged, you could be in for a shock. The fine print on the reverse side of the contract can hold

some surprising clauses. When you rent a car, you may be taking more of a financial risk than you think.

Insurance coverage

By far the most important question you need to ask before signing a rental car contract is: what will the insurance cover?

Unfortunately, this is also the most complicated question you can ask — insurance rates and policies are tricky. Among other things, the answers will vary widely from company to company and may depend on the age, quality and model of car you're renting and the area you're in. If you're a younger driver — say, under 25 — there might be a surcharge and the conditions could be different.

That said, the policies used by the major car rental companies all include a similar level of insurance protection. Under this basic umbrella of coverage you'll have to cover some of the cost of any damage that's your fault, but there's a limit on how much you have to pay — called an excess — that might be around \$1500. (However, there are exceptions to this — see *Reducing your risk*, right.) Any costs above the excess will be covered by the company.

If you're not at fault and the company is able to recover the full cost of damages from the responsible third party, you won't have to pay anything. However, if the company can't collect damages from the third party, you'll have to pay (but again, no more than

CHECK IT OUT

Anne and her husband didn't inspect their rental car — they just signed the agreement, took the keys and drove off. When they returned, the dealer pointed out a slight dent in the bumper which he claimed must have occurred while they were renting the car.

But Anne and her husband are certain the damage didn't happen while the car was in their possession. "I'm sure it was a pre-existing condition," Anne said. Unfortunately, since they didn't take the time to look the car over and note any flaws, she and her husband had no proof that the dent was already there.

As is the case with most rental car agreements, Anne had signed a contract that allowed the company to withdraw money from her credit card — even without her signature. The company withdrew \$500 to cover the costs of repairing the damage.

Had she realised how important it was to inspect the car and point out any pre-existing damage, this whole situation could have been avoided. "We've learnt our lesson the hard way ... I don't want others to be caught as we were."



the excess). So if you leave a rented car in a carpark and return to find that someone's given it a little dent — but hasn't left a note — you'll be out-of-pocket.

Reducing your risk

There's a lot to consider when choosing a rental car, not the least of which is the level of risk imposed by each company's insurance policy. If you're looking for peace of mind, there are a few things you should consider as you shop around:

■ **Excesses:** In general, these range anywhere from \$1500 to around \$300 and are subject to a number of conditions (see *The fine print*, below). Some companies give you a chance to lower the excess by paying a higher rate — usually an extra \$10 or \$15 per day to reduce the excess from \$1500 to about \$300, say. Other smaller companies may charge a lower excess to begin with.

Pre-existing conditions

Liability for damage presumes that you hire the car in a certain condition and it should be returned the same way — fair wear and tear aside. You have to answer for any scratches or dents that weren't there when the car left the lot.

In the spirit of accountability, some car companies have a policy of walking the customer around the car and checking for damage to the vehicle before they take possession. Any dents or scratches are noted on a diagram and the customer signs off on the inspection. This ensures that when the car is returned, both the dealer and the customer will agree on who is responsible for what.

If pre-existing damage isn't acknowledged by the company before you take possession of a car, you may end up having to pay for it (see *Check it out*, left). Depending on where and when you rent, some companies may not take the time to do an inspection so you should do it yourself. If you see something amiss, point it out.

■ **Exceptions:** Unfortunately, there's not much you can do about most of the exceptions to the insurance coverage listed on a rental agreement (see *The fine print*). Some companies will offer extra protection for tyres and windscreens — but you'll have to pay more.

■ **Single-vehicle accidents:** There may be a separate, non-reducible excess for a single-vehicle accident — it could be as high as \$5000 or as low as \$200 (but typically around \$2000 with a larger company). You should specifically ask about the company's policy on this, as it has the potential to be your greatest financial risk.

■ **Other types of coverage:** For an additional fee, some rental companies provide personal insurance (in the event you're killed or disabled) or personal effects and baggage insurance.

Even with extra coverage and a lower excess, you should drive your rental car with a sense of caution and an awareness that the coverage is far from comprehensive. □

SINGLE-VEHICLE ACCIDENT

Desley McDonagh's niece, visiting from Scotland, was unfortunate enough to have an accident in a rental car. The front tyre blew out, she lost control of the car and the vehicle flipped over. Thankfully, she escaped relatively unscathed, but the same couldn't be said for the car.

The contract she signed contained a clause that stated, among other things, that the "renter is liable up to a maximum of \$5000 for all damage arising out of an incident not involving a collision with another vehicle".

The company promptly withdrew as much as possible from her credit card — according to the stipulations of her contract — and it's now pursuing her for the remainder of the \$5000, plus \$700 for revenue the company lost due to the car being out of service.

For Desley, it's been an eye-opening shock to learn of the risk you take when you rent a car. "People shouldn't be under the misapprehension that they're fully covered when they rent a car," she warns.



The fine print

Your liability will depend on the circumstances of the accident. What was damaged and how did it happen? The reverse side of car rental contracts is usually crowded with legal verses that spell out the details.

■ For example, many companies won't cover damage to windscreens, tyres or undercarriages. They may not cover water, interior or overhead damage (from overhanging wires, awnings, bridges, etc) either.

■ In some cases, you may be liable for a non-negotiable excess, perhaps up to \$5000, if the accident doesn't involve any other vehicles — say if you damage the car by hitting

an animal or swerving to avoid one (see *Single-vehicle accident*, above).

■ The rental company may also hold you responsible for the full cost of repairs — above and beyond the excess — if you break the terms and conditions outlined in the fine print. This includes using the vehicle for any illegal purpose or driving under the influence of alcohol or drugs.

■ And if you're driving on an unsealed road, beware. Most car rental companies consider this a breach of the contract and can hold you responsible for the entire repair bill if any mishap occurs.



Tips for buying a computer

Christmas seems to be the peak

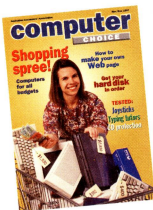


time for buying a home computer, so here are a few pieces of advice to help you make the right decisions.

FOR MORE HELP

How to buy a computer, published by *Choice Books*, looks at what you can do with a computer, as well as what to look for when buying one. The book sells for \$9.95 from newsagents or for \$10 post-free from CHOICE; see page 33.

Computer CHOICE magazine (published bimonthly) helps you get value for money when buying computer products and services, and shows you how to get the most out of your computer. Subscription is \$32 per year for CHOICE subscribers, \$36 for others. To subscribe, fill in the order form on page 22.



■ Think about what you'll use the computer for. For example, there's no point spending \$2000 or more if you're only going to use it occasionally for games — a \$200 games console will probably give you better value.

■ Decide whether to go for a Mac or a PC. PCs are generally more widely used, though Macs have a strong following in areas like publishing, graphic design and universities. On the other hand, a much wider range of games is available for PCs. Generally speaking it's a good idea to buy the same type as you have at work or that your friends have.

■ You also have the choice of a **desktop or notebook (portable) computer**. See page 35 for the pros and cons of each.

■ If you're going to buy a PC you have the further choice of either a **brand-name** or a **'no-name'** model. Brand-name models come from manufacturers such as Acer, Compaq, Dell, Gateway, Hewlett Packard, IBM and Packard Bell. 'No-name' models come from smaller, sometimes 'backyard' companies — you'll probably find a small computer shop in your suburb that sells them. Brand-names cost more, and back-up and support tend to be better. On the other hand, 'no-names' are often better value for money and tend to be easier to upgrade because they use interchangeable components.

■ If you're buying from a small business, check how long the company and the manufacturer of the computer have been around. If the retailer is buying computers from a larger distributor, rather than assembling their own from components, you'll have a better chance of having your warranty honoured if the retailer goes out of business.

■ Make sure you get the original CD-ROMs or licensing agreements for any software (programs) installed on the hard disk. If you don't have these,

it's likely that it's an illegal copy. You'll have problems getting support from the software's publisher, and you won't be able to reinstall it on your hard disk if it crashes.

■ Some computers only come with **onscreen manuals** — you don't get printed copies. If this is a problem for you, try to negotiate with the seller to supply you with printed versions — or factor the price of buying instruction books (available from most bookshops) into the cost of buying the computer.

■ Don't forget you'll need **software to make your computer useful** and a **modem** if you want to connect to the Internet. Software can add substantially to the cost of a computer. For example, recently released games cost about \$90, and serious business programs can cost several hundred.

■ Decide on the specifications you require. If you want to play the latest games and use the latest multimedia packages, you'll need a much more powerful computer than if you just want to use a word processor. Check the software that you want to use will run on the system you buy.

We recommend the following minimum specifications:

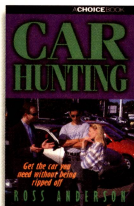
For a desktop PC:

- Pentium 200 MHz MMX or equivalent CPU.
- 32 Mb RAM.
- 15 inch SVGA monitor.
- 16x CD-ROM drive.
- 2.1 Gb hard disk.

For a desktop Mac:

- PowerPC 603e 200 MHz CPU.
- 32 Mb RAM.
- 15 inch monitor.
- 12x CD-ROM drive.
- 2.1 Gb hard disk.

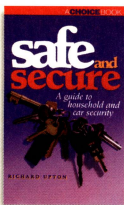
Give a **CHOICE Book** for Christmas



Car Hunting

If you're planning to buy or sell a car, *Car Hunting* strips away the mysteries of the car trade. It covers tricks dealers use, buying and selling privately, how to get the best price for your trade-in, and what to avoid at auctions.

\$16 Code: CARH



Safe and Secure

Safe and Secure can provide you with practical, affordable tips and hints for protecting your family, home and belongings. It includes advice about home, car and personal security, including window and door locks, travelling safely and improving your personal safety when out and about.

\$17 Code: \$S5

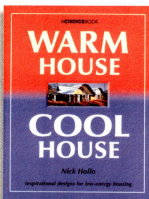


The CHOICE Guide to Baby Products

The *CHOICE Guide to Baby Products* offers both general and specific buying advice for a new baby's requirements — safe-conduct through a potential consumer minefield.

It includes practical information about subjects such as cots, pramettes, car restraints, first-aid kits, childcare, maternity bras, feeding your baby, nappies, immunisation and safety.

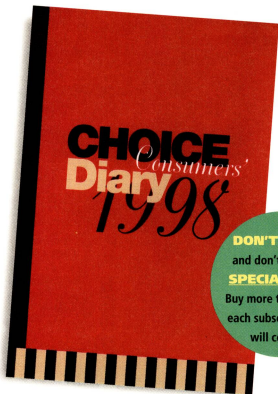
\$16 Code: CBP4



Warm House Cool House

This book inspires and encourages you to build or renovate to create an energy-efficient yet attractive home. Illustrated throughout, it includes sketches and plans from over 100 Australian homes in all climatic zones.

\$27.50 Code: WHCH



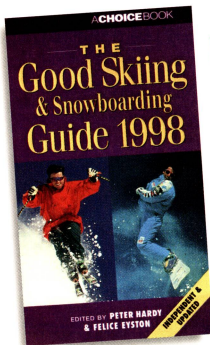
DON'T DELAY!
and don't forget our
SPECIAL OFFER

Buy more than one and
each subsequent diary
will cost \$14.

CHOICE Consumers' Diary 1998

Start next year bright and consumer-savvy with the *CHOICE Consumers' Diary 1998*. (Solve a few gift problems too.)

\$15 spiral-bound Code: 1998



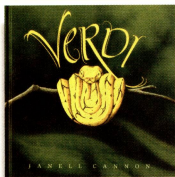
The Good Skiing and Snowboarding Guide 1998

If you're lucky enough to be going on a northern winter ski holiday, this guide supplies you with unbiased descriptions about the skiing, character and amenities of over 500 top resorts.

Details include price, accommodation, childcare facilities, lessons and colour maps showing lift locations and runs.

\$30 Code: SK12

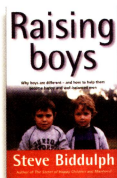
CONSUMER BOOKSHELF



Verdi

Verdi is a small yellow python who seems no reason why one would want to grow up into a boring, old, lazy, green python. However, eventually Verdi comes to understand that although he must grow and change he is still himself. *Verdi* is a full-colour picture book for children from 2-8 years.

\$18 Code: VERD

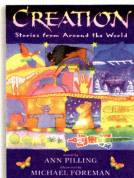


Raising Boys

Steve Biddulph has practical, thought-

provoking ideas on how parents can teach their boys to be happy, confident and kind, and on how schools and adult communities can change to provide mentoring that matters, and wipe out bullying, sexism and binge drug-taking.

\$18 Code: RBOY



Creation

A beautiful full-colour book containing 16 creation stories grouped into three areas: the creation of the world, the creation of animals, and warmth and darkness. Retold by Ann Pilling, these stories are from all over the world, including two Aboriginal legends plus stories from China, Scandinavia, native Americans and the Bible. For ages 2-8.

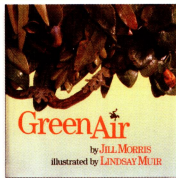
\$25 Code: CREA



The Roman News

If Rome had published a newspaper it wouldn't have been any better than this! *The Roman News* presents interesting facts and stories about ancient Rome in an informative and readable style. A wonderful read for children 6-12.

\$20 Code: TRN



Green Air

Silus the platypus frog is washed away from his rainforest home and has to find his way back to the 'green air' of his pool. Illustrated with colour photographs of sculpted clay models, this beautiful picture book would make a wonderful gift for children. For ages 2-8.

\$25 Code: GRNA



Life's Little Learning Activities:

For Babies and Toddlers 0-2 Years
For Pre-Schoolers 3-5 Years

These two small books (133 x 105 mm)

are full of exciting and imaginative ideas for games and crafts that are not only fun for children but also stimulate their imagination. They both include references to other books, organisations and shops that are useful for carers.

\$13 for both Code: LLLA

Order Form

Code	Title	Qty	Item price	Total price

Plus postage and handling (\$3 for one item plus \$1.20 for each extra item)*

*How to Buy a Computer and How to Connect to the Internet are post-free.

Total

For delivery before Christmas orders must be received by 12/12/97.

I enclose ☐ cheque ☐ money order (payable to the Australian Consumers' Association)

or, I wish to pay by: ☐ Bankcard ☐ Mastercard ☐ Visa
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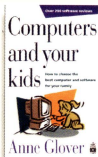
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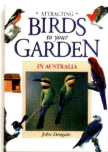
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Computers and your kids

If you're buying a computer or software for a child, this book can help you make the best selection. *Computers and Your Kids* demystifies the jargon and the equipment that every parent must deal with, and includes more than 200 software reviews.

\$20 Code: CAYK



Attracting Birds to Your Garden in Australia

A beautifully illustrated, full-colour guide to planning and building a garden to attract birds. It includes a 100-page directory of birds you may see in your garden, including introduced species. A charming book by popular ABC radio naturalist John Densgate.

\$40 Code: ABGA



EnviroCat

Is owning a cat incompatible with environmental responsibility? *EnviroCat* describes a training system that keeps your cat happy and healthy, while stopping it from roaming and damaging wildlife. It includes advice about training, nutrition and good health, cat ownership and the law.

With not much effort, you can keep both your cat and the native environment safe and happy.

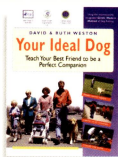
\$25 Code: ECAT



Backyard Self-sufficiency

Growing your own fresh, healthy vegetables and fruit isn't hard work if you plan carefully, plant thickly, keep the soil (and the plants) healthy and try not to interfere with nature. You don't need to use expensive fertilisers or pesticides and this book includes several no-dig methods. Everything you need to know about feeding yourself from your own backyard.

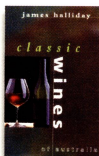
\$17 Code: BYSS



Your Ideal Dog

Is your dog a good 'canine citizen'? *Your Ideal Dog* explains how to train your dog using the 'gentle modern method'. You will learn communication skills for your dog and how to train it to sit and stand, walk through a crowd, to remain calm with various distractions, and to behave safely on roads. *Your Ideal Dog* also advises on the temperament and trainability of various dog breeds.

\$25 Code: YRID



Classic Wines of Australia

In *Classic Wines of Australia*, James Halliday takes the best Australian wines and looks at each vintage, noting individual characteristics and rating the wine and its current 'drinkability'. A wonderful book for wine lovers. Please note, the reviews of wine are the author's opinions.

\$30 Code: CWOA



The Book of Australia

More than 600 pages of detailed facts, figures and other information about Australia. An interesting almanac with details of climate, geography, history, economy, politics, health, defence, transport and communications.

\$20 Code: TBOA

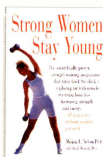


How to Connect to the Internet

This guide is a handy introduction to getting on the Internet. Whether you want to use it for business or pleasure, *How to Connect to the Internet* will point you in the right direction.

"A small price to pay for expert, unbiased, independent Internet advice" — *Australian Net Guide*; and "... it's the best and easiest to understand publication of its kind" — *The Mercury*.

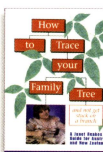
\$10 Code: NET



Strong Women Stay Young

This book presents a strengthening exercise program for women from 30 years of age that's designed to improve health and vitality. It also includes exercises to do at home and advice about incorporating them into an existing gym program.

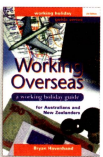
\$20 Code: SWSY



How to Trace your Family Tree

Genealogy is one of Australia's favourite pastimes, and *How to Trace your Family Tree* helps you to record your family history. It explains what information can be gleaned from birth, death and marriage certificates, shipping records, census records, newspapers and directories, and tells you how and where to find them.

\$17 Code: HTFT



Working Overseas

This expanded and updated guide is aimed at adventurous Australians and New Zealanders who want to see the world. Almost 200 organisations are listed that can assist in making the leap to working overseas, and the

book also explains working restrictions in many countries and types of employment available.

\$17 Code: WOS



How to Buy a Computer 2nd Edition

In plain language, *How to Buy a Computer* offers practical advice on buying a computer. It covers deciding whether you need a computer, working out what you need, plus a glossary of useful computer terms and a tear-out checklist to take with you when you go shopping.

\$10 Code: HBC2

Computing *on the go*

Notebook computers offer battery-powered mobility and constantly improving performance — but, compared to desktop computers, at a much higher



price. Are they for you?

However, notebooks don't change as completely or as often as desktops because of their integrated nature. The aspects most likely to change are the processor, the hard disk capacity and the amount of RAM, all of which will affect a notebook's speed but little else.

Despite the manufacturers' assurances, three of the notebooks tested have in fact been changed in some way or are due to be discontinued — see the table on page 38 for details. Apart from speed, however, the factors we've rated them for will still be the same.

What we found

■ Our tests indicate that processor speed is only one contributor to fast performance. All the models with a 'level 2 cache' (see *Which specifications do you need?*, page 36, for an explanation) were clearly faster than those without — irrespective of their processor speed. So this may be a feature worth looking for.

■ The 'active TFT' screens in our test clearly stood out as better than the other types (see *Which specifications do you need?* for details). Hopefully they'll become cheap enough to be the norm in the near future (see photo, page 36)

■ There are different ways of connecting a floppy disk or a CD-ROM drive to a notebook. With some, both are built-in; with others, both can only be attached externally. Others again allow one to be attached internally and one externally, or even only one to be used at any one time.

IN THIS ARTICLE

■ Is a notebook for you? On page 35 you'll find their pros and cons compared to a desktop computer.

■ What features do you need in a notebook? On pages 35 to 36 we tell you what all the jargon means, and what specifications to look for.

■ Which notebook to buy? We bring you test results for six brand-name notebooks, costing between \$3400 and \$5600.

NOTEBOOKS ARE THE COMPUTERS formerly known as laptops. They're small and can be battery-powered, making them ideal for people who have to use their computer in different locations or away from a power point (see *Which computer type is for you?*, right, for details).

But compared to full-size desktop computers, this convenience comes at a price. We looked at notebook PCs that cost less than \$5000 when we bought them, plus a comparable MACINTOSH model, and wanted to know what features and performance you get for that kind of money. To find out we put them through laboratory tests, and also designed a user trial to check what you're likely to think of them in real use.

As with all computers, notebook technology changes fast. So before we decided which models to test, we asked the manufacturers whether their products would be available largely unchanged in early 1998. Only six notebooks met this requirement, so you may notice some well-known brand names are missing.

Phone support lines and websites in Australia

- **Apple:** 1300 300 995; www.apple.com.au.
- **Compaq:** 1300 368 369; www.compaq.com.au.
- **Gateway 2000:** 1800 251 782; www.gw2k.com.au.
- **Hewlett Packard:** 13 10 47; www.hp.com.au.
- **IBM:** 13 14 26; www.au.pc.ibm.com.
- **Toshiba:** 1800 680 662; www.toshiba.com.au.

These different configurations affect easy portability (how many bits and pieces will you have to carry around?) as well as how you can use the computer. Table note 3 on page 39 gives details for the computers tested. You need to know how you'll use your notebook to find the best design for you.

WHAT TO BUY

GATEWAY 2000 Solo 2300*	\$4199
COMPAQ Presario 1207	\$3499
IBM ThinkPad 560E	\$3999**

* This model is now called the **Solo 2300 SE** and has an MMX processor and a 2.1 Gb hard disk. Be careful when shopping for it, because there's still a **Solo 2300** available — but it has a DSTN screen and a CD-ROM drive is an optional extra.

** Plus \$600 for optional 10x CD-ROM drive.

■ The **GATEWAY 2000** is a solid all-round performer with the longest-lasting battery, the equal-best screen and good speed. It's the clear top scorer, but the other two models in the *What to buy* list may be more attractive to people with particular requirements.

■ The **COMPAQ** is great on features: for example, it's the only notebook in the test with both the CD-ROM drive and floppy disk drive built in. This would be very convenient if you needed to carry both with you when using the computer. It also has a built-in fax/modem and plenty of software. However, its DSTN screen and relatively slow performance let it down.

■ The **IBM** has a fast processor and is much lighter and thinner than the other models tested. However, you can't connect any drive internally. But if you work mainly from your computer's hard disk and travel a lot, it may be a good choice.

WHAT TO LOOK FOR

Before you buy a computer, you have to decide what type you need, and what minimum specifications it has to have to do what you want.

Which computer type is for you?

Notebook pros ...

A notebook is for you — or may even be your only choice — when you fit into one or more of the following categories:

■ If you frequently have to use your computer in different situations, such as at home, at work and at school or uni, you may need the **portability** of a notebook — carrying around a desktop computer is just not an option.

The notebooks in our test weigh around 4 kg (give or take 50 g) including floppy drive, CD-ROM drive, AC adaptor and power cord. The exception is the **IBM**, at only 2.6 kg — however, that's without a CD-ROM drive (see *Testing CD-ROM drives*, page 38, for details. The optional external CD-ROM drive weighs 450 g.).

■ If you have to use your computer away from mains power — for example, when travelling, in the field or on external sites — a **battery-powered** notebook is your only option.

... and notebook cons

If you don't fit clearly into one of the categories described above, the following disadvantages of notebooks may help you make a decision:

■ Notebooks are considerably **more expensive** than their full-size counterparts.

■ Notebooks are usually a **step behind** desktop computers when it comes to specifications such as processor speed, RAM and CD-ROM drive speed.

■ Computer technology gets superseded quickly. While you can expand a desktop model relatively easily and extensively, your **upgrade options** are usually fairly limited with a notebook. So if you want to keep up-to-date with the latest hardware developments and software, a notebook may soon disappoint you.

■ The **screen is smaller** than a desktop's and not as clear (although the TFT screens are very close in quality). It's also not at eye level. If you use it a lot you could suffer eye, back and neck problems, particularly if you don't sit correctly.

■ The relatively small notebook screens aren't the best for **multimedia and games**.

Which specifications do you need?

The specifications and features you need to look for in a computer generally depend on what you plan to use it for.

For example, if you're only interested in business-type uses such as a word processor or a spreadsheet, you may not need to buy the fastest machine available, and don't have to look for multimedia features such as a soundcard, speakers, etc.

If, on the other hand, computer games and multimedia programs are your major aim, look for a fast processor, a CD-ROM drive, good video and sound features, and a reasonably sized screen. In other words, you probably won't be considering a notebook.



The notebook's answer to a mouse; you'd probably get used quite quickly to either a touchpad (top) or a pointing knob (above).

LEFT: If space is limited on your desk or in your home, the small size of a notebook (on the left in the photo) compared to a desktop computer may be worth the extra money.



Continued overleaf

WHAT TO LOOK FOR continued

With some of the specifications explained below, what's considered 'standard' changes frequently, and notebooks are usually a step behind desktops. For example, at the time of writing, Pentium 200 MMX processors were commonly available in \$2000 to \$3000 PC desktops, but only in notebooks above \$5000.

■ The **CPU (central processing unit or processor)** is the computer's main brain. Pentium 150 (for PCs) and PowerPC 166 (for Macs) are examples of CPUs. The numbers refer to the CPU's speed in megahertz (MHz).

The models tested had processors with between 133 and 166 MHz — some with MMX features (see below). The latest generation of notebooks is available with 200 MHz CPUs.

If you want to run Windows 95 comfortably or use your notebook for multimedia purposes, you should look for at least a Pentium 166 MMX.

■ **MMX** is a type of Pentium CPU with extra features designed to improve the performance of multimedia software.

■ **RAM (random access memory)** is your computer's short-term memory, and is measured in megabytes (Mb). Anything in RAM is lost when you switch off your computer. The CPU loads software and files into RAM, where it can look at and change them when carrying out tasks.

The models tested all have 16 Mb of RAM. You can usually upgrade your computer's RAM (this is generally much cheaper with desktops than with notebooks), which may increase its speed considerably for a lot of tasks.

While 16 Mb is the minimum you should get, look for 32 Mb if you plan to use Windows 95 and several programs (for example, Word and Excel) at the same time.

■ **Level 2 cache** (also called L2 or external cache) is a type of memory used to store information that's frequently used by the CPU. It's located 'outside' the CPU and is measured in kilobytes (kb).

The tested PCs with an L2 cache performed clearly faster in our tests than those without — irrespective of their CPU speed.

■ The **hard disk** is used to store information your computer regularly needs and files you create. The amount of information you can save is measured in megabytes (Mb) or gigabytes (1 Gb = 1024 Mb).

The models in our test have 1.44 Gb to 2.1 Gb of hard disk memory — which should be plenty for most users.

■ There are several types of notebook **screen**, all in colour: HCA (which is unique to **TOSHIBA** and stands for high-contrast addressing), DSTN (which, you guessed it, means double-layer super-twist nematic) and active matrix TFT (thin film transistor; the **MACINTOSH** screen is called TFT or colour TFT).

The TFT screens in our test clearly got the thumbs up — you should definitely look for one when buying a notebook, and hopefully they'll soon become cheaper.

Screen size is measured in inches diagonally across the viewable area.

■ Notebook **keyboards** are smaller than normal ones. While the size and spacing of the main ('QWERTY') keys are usually about the same, all other keys, such as function and cursor keys or the space bar, won't be the same size or in the same spot as you're used to on normal keyboards.

Watch out for designs which create problems — for example, those with a very small space bar, or a 'delete' key very close to the 'enter' key.

■ Notebooks have a **pointing device** integrated in the keyboard which does the job of a mouse. In our test we found two types:

— **Touchpads** are located below the space bar. You direct the cursor by moving your finger or thumb across a touch-sensitive pad.

— **Pointing knobs** are located on the keyboard between the 'G', 'H' and 'B' keys. You move the cursor by pushing or pulling the knob in the desired direction.

Our user panel preferred the touchpads. However, our testers, who used the notebooks for much longer, think that after extended use, touch-typists may find a pointing knob is easier to use, because your hands don't have to leave the touch-typing position.

■ One major advantage of notebooks over desktop computers is that you can operate them with a **rechargeable battery** away from mains power. The main battery materials used are nickel-metal-hydride (NiMH) and lithium-ion (Li-ion). Neither type was found to last longer in our test.

■ A **CD-ROM (compact disk — read only memory)** can store large amounts of computer information, such as programs, pictures, video and sound. Most modern software comes on CD-ROM, so it's becoming more and more important that your computer has a CD-ROM drive.

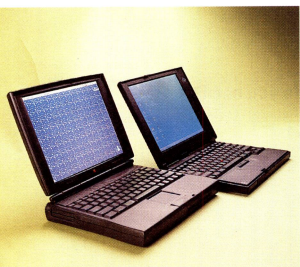
Like processors, CD-ROM drives keep getting faster — the faster it is, the faster you can load information from it. The tested models had 8x speed or more — by now you should be able to get a 12x or even 16x drive.

■ A **modem** is a device that connects a computer to a phone line and — with the right software — allows you to use the Internet and (if it's a fax/modem) send and receive faxes. Only one of the models tested (the **COMPAQ**) has a built-in fax/modem, but you can connect one to all the others.

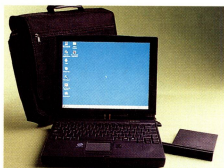
■ A **floppy disk drive** allows you to work from and copy to 3.5 inch floppy disks. These can store 1.44 Mb of information and can be easily carried from one computer to another. All the notebooks tested come with a floppy disk drive.

■ A **PCMCIA slot** allows you to connect a **PC card** — an electronic circuit board that expands your computer's ability to do things (for example, you can install extra RAM, connect to a network or attach a modem). All the notebooks in this test have a PCMCIA slot.

The jargon may be unenlightening, but your eyes will spot the difference between a TFT screen (left) and a DSTN one.



The models are profiled in rank order (except the **MACINTOSH**, which had to be scored separately). Prices shown are a good target to aim for when shopping around, based on nationwide checks in October 1997. Anything lower is a bargain.



GATEWAY 2000 Solo 2300

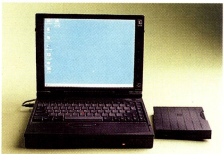
Target price: \$4199 (note: new model is the **SOLO 2300SE**; see *What to buy* list).

Good points

- Clearly the best overall.
- Fast performer, possibly thanks to L2 cache memory.
- Easiest to use overall.
- By far the longest-lasting battery.
- Equal best screen (active TFT).
- Long warranty.
- Has special Windows 95 keys.
- Comes with a carry case and headphones.

Bad points

- Lowest score for using the floppy drive, CD-ROM drive and PCMCIA slot.
- Comes with only a small selection of software.
- Trialists didn't find the keyboard easy to use.



HEWLETT PACKARD OmniBook 2000 CS

Target price: \$3390 (plus \$530 for CD-ROM drive)

Good points

- Best of the non-TFT screens.
- Long warranty.
- You can fit an additional high-capacity battery internally instead of a floppy or CD-ROM drive.

Bad points

- Slowest performer, perhaps because it lacks L2 cache memory.
- Particularly poor performance with graphics.
- Comes with only a small selection of software.
- Connecting and disconnecting the floppy drive externally is difficult.



COMPAQ Presario 1207

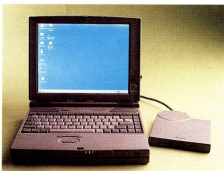
Target price: \$3499

Good points

- Easy to use.
- Best keyboard.
- Long-lasting battery.
- The only model tested with both the floppy disk and CD-ROM drives built-in.
- Built-in 33.6 kb per second fax/modem.
- Fastest CD-ROM drive.
- Has special Windows 95 keys.
- Comes with a good selection of software.

Bad points

- Relatively poor screen.
- Relatively slow performer, perhaps because it lacks L2 cache memory.
- The only model tested that doesn't have an infrared port and a built-in microphone.



TOSHIBA Satellite Pro 440CDX

Target price: \$3990

Good points

- Fastest performer, possibly thanks to L2 cache memory.
- MMX processor.
- Particularly good performance with graphics.
- Long warranty.
- Has special Windows 95 keys.

Bad points

- Most difficult model to use.
- Worst screen.
- Relatively short battery running time.
- Comes with only a small selection of software.



IBM ThinkPad 560E

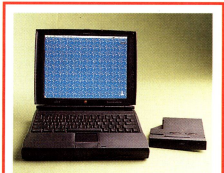
Target price: \$3999 (plus \$600 for a CD-ROM drive)

Good points

- Fast performer, possibly thanks to L2 cache memory.
- MMX processor.
- Thinnest and lightest model tested.
- Comes with a good selection of software.

Bad points

- Neither the floppy disk drive nor CD-ROM drive can be installed internally, so you'd have to carry them both around separately.
- Shortest battery running time.



APPLE MACINTOSH PowerBook 1400C/166

Target price: \$5595

Good points

- Easy to use.
- Equal best screen (active TFT).
- Comes with a good selection of software.

Bad points

- You can connect either the floppy disk drive or the CD-ROM drive — not both of them at the same time.
- Floppy disk and CD-ROM disk can't be manually ejected from drive (only possible via software commands).
- The only model tested with only one speaker (no stereo sound).
- Has no connection port for an external monitor.

Brand / model (in rank order)	Manufacturer / distributor	Origin	Target price (\$)*	Warranty (years)	Depth when folded (mm)	CPU (MHz)	L2 cache (kb)	RAM tested / expandable to (Mb)	Hard disk (Gb)	Screen type
GATEWAY 2000 Solo 2300 (A)	Gateway 2000	Malaysia	4199	3	48	133	256	16 / 192	1.44	TFT
COMPAQ Presario 1207 (B)	Compaq	Taiwan	3499	1	50	150	0	16 / 80	1.44	DST
IBM ThinkPad 560E	IBM	Japan	3999 (D)	1	33 (F)	150 (MMX)	256	16 / 80	2.1	DST
HEWLETT PACKARD OmniBook 2000 CS (C)	Hewlett Packard	Taiwan	3390 (E)	3	52	133	0	16 / 128	1.44	DST
TOSHIBA Satellite Pro 4400CX	Toshiba	Japan	3990	3	53	133 (MMX)	256	16 / 144	1.44	HCA
MACINTOSH PowerBook 1400C/166	Apple	Taiwan	5595	1	51	166	128	16 / 64	2.0	CTF

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in October 1997.

na Not applicable.

(A) This model is now called Solo 2300 SE and has a Pentium 133 MHz MMX processor and a 2.1 Gb hard disk. There's still a Solo 2300 notebook available — however, this model has a DSTN screen and doesn't come with a CD-ROM drive.

(B) This model will be discontinued in December 1997.

(C) This model has been modified. It now has a Pentium 150 MHz MMX processor and a 20x CD-ROM drive.

(D) Plus \$600 for optional 10x CD-ROM drive.

(E) Plus \$530 for optional 10x CD-ROM drive.

(F) This model is very flat and light, which is great if you have to carry it around a lot. However, both floppy drive and CD-ROM drive have to be added externally, unlike with the other notebooks, where one or both can be attached internally.

(G) CD-ROM drive optional.

(H) The test software for the Macintosh relates the computer's performance to that of an older Mac, the PowerMac 6100/60. The PowerBook 1400C/166 has the following relative performance increases over it: processor 153%; floating point 173%; hard disk 131%; graphics 122%; CD-ROM 211%. See *Apple or PC?* below for more on this.

Testing CD-ROM drives

We tested the performance of the notebooks' CD-ROM drives. The simple result: the higher their claimed speed, the higher their score. The three models with 10x drives (**GATEWAY 2000**, **HEWLETT PACKARD**, **TOSHIBA**) scored almost identically, but clearly worse than the **COMPAQ**'s 14x drive.

That's why we didn't include the CD-ROM rating in our performance score — you can make the comparison yourself simply by looking at the different models' claimed speeds. In addition, the results for the **MAC** (which has an 8x drive) couldn't be directly compared to those of the PCs (see *Apple or PC?*, right, for more on the difficulty of comparing PCs and Apples).

The CD-ROM for the **IBM ThinkPad 560E** is optional, and wasn't available when we bought the test products. As most of the test software we used comes on compact disks, a CD-ROM drive was essential to be able to install the software on the computers' hard disks. So we bought one of a different brand and used it with the **IBM**.

The optional **IBM 10x** drive is now available for around \$600, weighing

450 g. Unlike all the other drives tested, you can't connect it internally, but have to run it via the PCMCIA slot.

All the tested notebooks allow you to connect a floppy disk drive and/or a CD-ROM drive — see table note 3 for the different configurations.



Apple or PC?

There are two main manufacturing lines of computers:

■ **IBM** first built this type of 'Personal Computer' (PC), but now a vast range of manufacturers produces IBM-compatible PCs (or IBM clones).

For example, the **GATEWAY 2000**, **COMPAQ**, **HEWLETT PACKARD** and **TOSHIBA** notebooks in this test are all PCs with this background.

■ **MACINTOSH (MAC)** computers are mainly manufactured by **APPLE**, and are usually not compatible with PCs.

This lack of compatibility caused some problems for us when testing the notebooks: none of the PC test software would run on the **MAC**, and vice versa. This means we can't give you an overall performance comparison between the PCs and the **MACINTOSH**.

The test software for the **MAC** relates the computer's performance to that of an older **MAC** model — the **PowerMac 6100/60** (for example, the tested model's processor performs about 150% better than that of the **PowerMac 6100/60**, the CD-ROM drive around 210% better). So in terms of performance, you can only compare Apples with Apples.

We tried to get at least a rough comparison by measuring the time the PCs and the **MAC** needed to carry out certain tasks in Microsoft Works and ClarisWorks respectively. However, in some cases the PCs were several times faster than the **MAC**, in others we found the opposite.

For the battery-life assessment, we were able to run a manual test on the **MAC** that simulated very closely the test program for the PCs — so the scores are comparable.

The ease of use assessments for the six notebooks were all done in the same way by the same people, and so these scores for the PCs and the **MAC** are also comparable.

	Pointing device	CD-ROM speed	Connection of floppy and CD-ROM drives	Battery running time (h:min)	Battery life score (%)	Ease of use score (%)	Performance score (%)	Overall score (%)	Brand / model (in rank order)
2.1	Touchpad	10	A	5:02	92	71	79	80	GATEWAY 2000 Solo 2300 (A)
1.3	Touchpad	14	B	3:31	64	70	60	65	COMPAQ Presario 1207 (B)
1.3	Pointing knob	10 (G)	C	2:02	37	66	83	62	IBM ThinkPad 560E
2.1	Pointing knob	10 (G)	A	2:49	51	69	57	60	HEWLETT PACKARD OmniBook 2000 CS (C)
2.1	Pointing knob	10	A	2:12	40	57	85	60	TOSHIBA Satellite Pro 440CDX
1.3	Touchpad	8	D	2:26	44	70	(H)	na	MACINTOSH PowerBook 1400C/166

1 Depth/thickness when folded

The lengths and widths of the folded notebooks make all of them just a little larger than an A4 sheet, so we've just shown their depth.

2 Specifications

For an explanation of these, see *Which specifications do you need?*, pages 35 to 36.

3 Connection of floppy and CD-ROM drives

There are different designs for connecting the floppy and CD-ROM drives:

- **A:** Either drive may be installed internally. If the CD-ROM drive is installed internally, the floppy drive can be installed externally at the same time.
- **B:** Both drives are permanently built-in.
- **C:** Both drives can only be installed externally.
- **D:** Either drive may be installed internally, but only one drive can be installed at any one time.

4 Battery life

A test called BatteryMark was used to measure how long the batteries of the PC notebooks could provide power to run the processor, a disk and test software. To ensure the screen didn't fall into 'sleep' mode, we used a device that regularly hit the space bar.

For the **MAC**, we developed a practical test that simulated this as closely as possible, because no comparable test program was available.

These tests are very harsh. In real use the battery might last longer, depending on how you use the notebook. But if you often need to work without mains power, go for one of the notebooks with the best results in this test (the **GATEWAY** 2000 and the **COMPAQ**).

5 Ease of use score

The ease of use score is a combination of laboratory tests and a user trial.

In the lab, we assessed aspects such as the quality and ease of use of the screen and how easy it was to remove the floppy disk and CD-ROM drives.

In the user trial, eight people (from fast touch-typists to slow hunt-and-peck typists) carried out standard tasks and rated the following:

- **Keyboard:** Size, shape, positioning and feel of the keys; overall impression of the keyboard.
- **Pointing device:** Positioning of the pointing device; ease of moving, positioning and using the cursor.

6 Performance score

'Performance' with computers essentially means speed — which could be an important factor for you if you run a lot of graphics applications, play games or do very complex calculations, for example. The performance score for the PC notebooks is a combination of the results from various benchmark tests.



A so-called PCMCIA slot lets you add 'cards' that expand your computer's abilities — for example, to attach a modem or connect to a network.

7 Overall score

The overall score is a combination of the battery life, ease of use and performance scores, weighted as follows:

- Battery life score: 30%.
- Ease of use score: 40%.
- Performance score: 30%.

All the tested models have ...

The notebooks tested come with a wide range of functions and features. We've listed those we think will be of interest to most potential buyers:

- AC adaptor and power cord to run the computer with mains power.
- 1.44 Mb floppy drive.
- CD-ROM drive (except the **IBM** and **HEWLETT PACKARD**, which have optional CD-ROM drives).
- Line-in microphone jack.
- Headphone jack.
- PCs: a parallel port (for example, to connect a printer), a serial port (for example, to connect an external modem or a mouse) and a port for an external monitor.
- **MACINTOSH:** a SCSI port (for example, to connect a CD-ROM drive or scanner) and a serial port (for example, to connect a mouse or printer).
- PCMCIA slots to connect either two type II or one type III PC cards (except **COMPAQ**: one type III or one type II card).
- 16 Mb of RAM.
- Sound card and at least one built-in speaker.
- Windows 95 (Version B) operating system (except **MAC**: Mac OS Version 7.6.1).
- Infrared port (except **COMPAQ**), which allows you to communicate with other computers or printers that also have this ability.



Green power or greenhouse?

The lead-up to this month's Kyoto conference on climate change has brought the global warming issue and greenhouse gas emissions to the fore of international debate. While the Australian government argues for exemption from binding targets for the reduction of greenhouse gas emissions, some consumers are taking matters into their own hands and putting their money into the development of 'greener' power.

IN BRIEF

■ Many consumers have indicated that they want to do something to help reduce greenhouse gas emissions, and that they're willing to pay more to help the development of 'greener' electricity.

■ Several electricity retailers are offering their customers the chance to buy less environmentally damaging power, generated using renewable energy sources such as wind, solar and hydro power.

■ Even if you can't buy 'green power' directly, some power companies are taking financial contributions from individual consumers towards its development. This is not an investment scheme — the money is a donation.

■ At present only a few power companies offer consumers green energy, but others are starting to show an interest in developing something similar.

AT THE 1992 RIO DE JANEIRO EARTH Summit, most of the world's industrialised nations, including Australia, agreed to reduce greenhouse gas emissions to their 1990 levels by the turn of the century. But by 1994, our emissions had in fact increased by 2%, and while this is less of an increase than in previous years, it's still an increase.

A National Greenhouse Gas Inventory found that power stations contributed about 33% of all carbon dioxide emissions for 1994. This is because of our heavy dependence on burning fossil fuels — mainly coal — for power generation. A reduction in power station emissions could have a major impact on our total emissions.

At present, only 11% of electricity in Australia is generated from non-polluting sources, mainly in the form of hydroelectricity — see *Devil in disguise?*, right. But this is about to change — electricity retailers recently introduced schemes designed to reduce dependence on fossil fuels by supporting the development of energy from renewable sources (see *Energy sources*, page 42, for more about energy alternatives). And even if your supplier doesn't offer any 'green' options, there are several schemes running which are open to anyone who wants to join.

Most of the schemes are in NSW, operating in the Green Power accreditation program run by the NSW government's Sustainable Energy Development Authority (SEDA). Under the Green Power program, a scheme can be energy-based (where you pay for 'green' energy matched to your electricity consump-

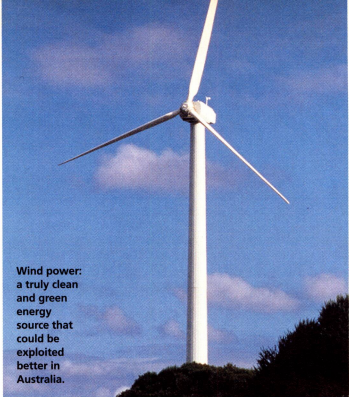
tion — for this you must be a customer of a supplier offering the scheme) or contribution-based (where you contribute money to the development of green power projects — anyone can join these).

Income and expenditure for each Green Power scheme goes into a separate account, which is independently audited for SEDA. Annual financial statements for each Green Power scheme are available to the public, so that you can check whether you're getting what you're paying for.

Energy-based schemes

■ Advance Energy, energyAustralia, Great Southern Energy and NorthPower are the power companies in NSW offering customers the option of buying some or all of their electricity (you choose how much — say 10%, 25% or 100%) from renewable sources. The renewable energy goes into the main grid, along with coal-based energy. So while the 'green electrons' you pay for may not actually go to your home, the equivalent of your energy consumption will be matched by supply from 'green' generators.

Although the running costs of renewable energy sources are quite cheap — sun, wind and water are free — the set-up costs are quite high, and customers currently pay more for their power. How much more depends on the proportion of green power you choose to take up and pricing differences between power retailers. You're looking at around 50 cents to \$4 per week extra for the average family household, depending on the proportion of green power you choose. But as more people enlist in the schemes,



Wind power: a truly clean and green energy source that could be exploited better in Australia.

the cost is expected to fall. In fact **energyAustralia's Pure Energy** has already dropped from 14.25 cents per kWh last year to 13.95 cents for 100% green power (the normal rate for domestic consumers is 10.15 cents per kWh).

There aren't many green-powered generators available at present, and demand could outstrip supply. This may mean being put on a waiting list until new green energy sources are created. If you've already signed up and there isn't enough green power for your needs, you get a rebate, so you're paying regular prices.

Contribution-based schemes

■ Victoria's **CitiPower** offers the SEDA-accredited **EcoPower** program, where you buy 'EcoUnits' at a cost of \$10 each. You choose how many you want to buy, and how often you want to renew them. Each EcoUnit provides the green equivalent of 350 kWh — so if you want to go totally green, you can match the number of EcoUnits you buy to your consumption. Non-customers can also support green power by purchasing EcoUnits — as a German who read about the scheme on the Web has done!

■ NSW's **Integral Energy** power company provides the option to round your bill up to the next dollar, or make a regular nominated contribution. The money goes into a special fund, **Community Sunpower**, set up to provide solar power (photovoltaic) energy-generation equipment to community facilities such as local schools.

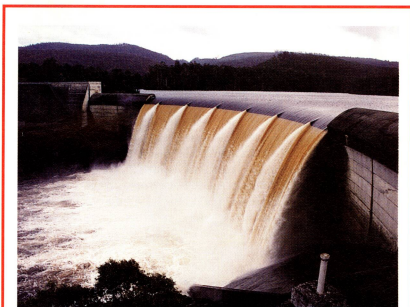
■ **Australian Inland Energy** has established a special-project fund, **Solar Future**, which anyone can join for \$40 per year. The first project is to redevelop the solar thermal power station at White Cliffs (in western NSW), which may eventually become Australia's largest solar power station.

■ As well as its energy-based scheme for customers, **Great Southern Energy** has a contribution-based scheme for non-customers. For \$40 per year, you can become an *earth saver supporter*, and contribute to the construction of more green power generators.

■ **Powercor**, another Victorian retailer, offers 'green power' only to business customers and only in NSW.

At the time of writing, none of Australia's other power retailers had a 'green power' scheme available to domestic customers. However, several are planning to introduce something in the near future, and many electricity retailers have also signed the Federal Government's Greenhouse Challenge, a co-operative agreement to reduce greenhouse gas emissions.

If you want to find out more about how you can contribute to the development of less environmentally damaging power generation, ring SEDA's information line on 1800 351 777.



Devil in disguise?

Tasmania's **Hydro-Electric Corporation** provides virtually all of the state's electricity. Although hydroelectricity is 'clean', in that there are no greenhouse gas emissions, whether or not it is truly 'green' is a matter of debate.

The construction of dams for hydroelectric power stations involves major changes to the landscape (particularly large-scale flooding of ecosystems) and to river volume and flow patterns, both upstream and downstream of the dam.

The construction of dams in wilderness areas of Tasmania has been particularly controversial, such as the flooding of Lake Pedder and the proposed Gordon-Franklin dam, which was eventually stopped from going ahead by Federal Parliament in 1983.

However, there are no more large-scale developments planned for Tasmania, and the construction of the proposed Basslink, a 300 megawatt undersea cable, will allow Tasmania to join the national grid and provide non-polluting, renewable energy to mainland customers — and to buy polluting energy from the mainland during drought periods.



Janice signed up to be one of **energyAustralia's 'pure energy partners'** — she'll pay more for her electricity as a contribution to the development of greener power sources.

Continued overleaf



Why should consumers pay for the development of green power infrastructure?

■ Setting up environmentally friendly power stations is an expensive business, and at present doesn't make economic sense for corporatised and privatised power retailers when they can get cheaper coal-generated electricity. There is some small-scale research into renewable energy and development going on, particularly for use in remote settlements.

■ Government initiatives to reduce greenhouse gas emissions remain limited to voluntary industry agreements, such as the Greenhouse Challenge, and despite pressure from other developed countries to reduce them, the Federal Government endorses our continued dependence on coal-generated power.

■ At this point, the main evidence of any government commitment to sustainable energy is the NSW government's establishment of SEDA. Having said all that, some government departments and offices have signed up for green power.

■ By creating demand for renewable energy, consumers can speed up the development process, resulting in an increase in infrastructure and ultimately lower costs. But for now it's up to you.

Energy sources

Coal

Coal-fired steam turbines produce about 80% of Australia's electricity — and over 200 million tonnes of greenhouse gases per year. World coal reserves may last several hundred years, and while coal-powered electricity is relatively cheap, it comes at the expense of the environment.

Apart from carbon dioxide (CO_2), burning coal also produces nitrogen oxides and sulphur dioxide (pollutants which cause respiratory irritation and acid rain). When coal beds are exposed during mining, methane — a very potent greenhouse gas — is released into the atmosphere. The methane could potentially be tapped and used to generate power, although SEDA doesn't consider it appropriate for its Green Power portfolio because of its association with coal and coal pollution.

Methane versus carbon dioxide (CO_2)

Burning methane for energy produces carbon dioxide and water vapour. Although CO_2 is also a greenhouse gas, one tonne of methane has the global warming potential of 24.5 tonnes of CO_2 — which in effect makes CO_2 the lesser of two evils.

So although burning methane is not 'clean' — like solar or wind power, for instance — it is in fact much better than allowing it to escape into the atmosphere, where the effects would be much worse.

Greener power

Some of the main renewable energy sources in use or under development in Australia include:

■ **Solar power:** Every year, Australia receives enough sun to supply our energy needs 15,000 times over — yet only a tiny fraction of this energy is used.

Most people associate solar power with **photovoltaic cells**, like those found in calculators, watches and roof panels. These cells produce electricity directly from solar radiation. Although they're useful for small-scale and remote applications, there are a number of drawbacks, including set-up cost, the large area of cells needed (one square metre generates about 100 watts) and not working at night.

The other major solar technology is **solar thermal**. Large dishes are used to concentrate the sun's rays, and the energy is used to heat water, producing steam which drives a steam turbine to generate electricity.

■ **Wind power:** Wind power technology is well-developed, particularly in Europe and the US, and there are several wind farms — groups of windmills — in Australia already. They're often ideal for remote settlements and islands where connection to the main grid is expensive and impractical.

■ **Hydroelectricity:** Virtually all of Tasmania's electricity comes from hydroelectric schemes, and along with other schemes in NSW, Queensland and Victoria, it accounts for 11% of Australia's total electricity production.



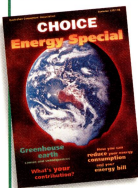
While coal-powered electricity is relatively cheap, it comes at the expense of the environment.

SEDA will only accredit hydroelectric power for its Green Power portfolio if it comes from an existing dam with appropriate flow rates. New dams which involve flooding valleys are generally not acceptable.

■ **Landfill gas:** Methane is produced by natural decomposition of organic matter in existing landfill sites (rubbish dumps). It would normally escape into the atmosphere, but instead it is tapped and burnt to create energy.

■ **Biomass:** Agricultural waste from the sugar, cotton and forestry industries can be burnt to create energy. Sugar cane waste, for instance, is normally left to rot in the fields, releasing methane. Burning it instead creates CO_2 , which, as explained earlier, is less potent than methane — so it's a net environmental gain.

Bagasse, the crushed, juiceless remains of sugar cane after milling, can also be burnt and used to drive steam turbines.



If you want to reduce your contribution to the greenhouse effect, there are many ways you can save energy and money. Our **CHOICE Energy Special** helps you identify those areas in your household with the biggest savings potential, and gives plenty of tips on how to cut back on your energy bill. For a

free copy of our 12-page booklet, send a stamped (\$1.25 in NSW, \$1.50 other states) envelope, of a size you could fit a copy of CHOICE into, to: **Energy Special**, CHOICE, 57 Carrington Road, Marrickville 2204.

Sizing the sound



Mini stereo systems are becoming increasingly popular. They're mini in size — but are they also mini in sound? We put 10 systems to the test.

POWERFUL HIFI SOUND QUALITY for a budget price — sounds too good to be true? It is.

While all the stereo systems in our *What to buy* list (page 44) produce acceptable sound, they can't match the hifi quality of more expensive systems built up from separate components.

For our test, we chose mini systems costing \$550 to \$800 with a double tape deck and a multi-CD player: the PANASONIC can hold up to five CDs, all the others can take three — either in a drawer (PANASONIC, JVC and SANYO) or in a carousel (all the others). Our user panel found drawers easier to use — see the photos on page 47 for the difference.

The minis offer a lot of features and functions — whether you find them useful depends on your needs (see *Features they all have*, page 46, and the table notes, pages 46 to 47, for details). However, none of the tested models provides a surround-sound processor or additional surround-sound speakers.

Speakers the limit

■ **Speakers** The speakers are the component showing the biggest differences between models. Clearly the best were those from KENWOOD and SONY, while the JVC and particularly the SANYO rated poorly.

Generally, the speakers are also the main limiting factor of the mini systems: they don't reproduce frequencies in the low and mid ranges very evenly, and usually can't reproduce low bass frequencies at all.

However, adding better-quality speakers won't necessarily improve the sound quality, because some amplifiers are designed to cover up the speakers' deficiencies (for example, to boost certain frequencies).

That's why the PANASONIC, PHILIPS, SHARP and YAMAHA might even sound worse with different speakers. Our tests showed the AKAI, KENWOOD and SONY systems are the ones most likely to be improved by better speakers.

For all the mini systems, you can't turn up the volume really high without the sound becoming distorted — irrespective of the claimed power of the system.

■ **Amplifier** Most of the amps performed very similarly. However, the SANYO scored low in most tests, while the SONY consistently achieved high scores.

■ **Tuner** All the tuners achieved generally good results.

■ **CD player** Currently, the main source for recorded music is CDs, and the mini systems reflect this: their CD players generally performed well.

However, the SHARP couldn't handle the simulated

IN BRIEF

■ The mini stereo systems tested combine a radio tuner, an amplifier, a double cassette deck and a multi-CD player in one unit. Two bookshelf-size speakers and an infrared remote control complete the package.

■ While the models in our *What to buy* list produce acceptable sound, they can't match systems built up from separate components. Their speakers are usually the limiting factor.

'scratches' on our test CD and skipped them. The KENWOOD CD player was quite sensitive to vibrations from the speakers: it sometimes skipped when playing a normal CD on higher volume.

■ **Tape deck** The KENWOOD, AKAI and PHILIPS tape decks got the best results for sound quality, the JVC and SONY the worst. The biggest differences became apparent on music copied ('dubbed') to tape rather than on prerecorded tapes.

Some tape decks lack rather basic features. For example, the JVC, PANASONIC, PHILIPS and PIONEER don't have Dolby noise reduction, and the PIONEER can adjust to type 1 ('normal') tapes only.

However, the SONY stood out as having the most low-tech tape deck of all the models tested: it doesn't have auto-reverse on either tape drive, and can't be operated by remote control. On copied tapes, it reproduces high frequencies very poorly.

Are they for you?

■ If you're after an easy-to-set-up, compact and relatively cheap stereo system, and

mainly want to play CDs, all the systems in our *What to buy* list will do the job. Look for one that offers the features you're after, and otherwise — look for the best deal.

■ If high-quality sound is your main aim, you can't go past a system made up from separate components. Also, if you've already got a separate-component system, even if it isn't quite state-of-the-art any more, you're probably used to better-quality sound and will find mini systems disappointing. You're likely to be better off upgrading your system component by component.

WHAT TO BUY

KENWOOD XD-550	\$699
SONY MHC-GR3	\$599
PIONEER XP270C	\$599
PANASONIC SC-AK20	\$599
SHARP CD-C1600	\$799
YAMAHA GX-50	\$599
PHILIPS FW750C	\$699
AKAI AC-520	\$549

WHAT TO LOOK FOR

If you've decided a mini stereo system is for you, keep the following in mind when shopping around:

■ **What's in it:** Think about what you want from a system. Do you want a double tape deck, a multi-CD player or even a surround-sound system? (You won't get the latter from any of the models in this test.)

■ **Listening test:** The most important point when buying a stereo is that you are happy with its sound. So make sure you listen to the model before you buy.

— Ask whether the shop has a dedicated listening room, or whether you can do a home test (especially if you're thinking of buying a more expensive system): the acoustics in the showroom and your living room may be quite different.

— Use a CD and a tape that you know well. Play a track with both quiet and loud passages on all the stereos you're considering, to compare their sound.

— Turn the volume up to a level you'd normally listen to, but also find out at what level the sound starts to distort considerably (in case you need a bit more power — for example, at parties).

— Play a blank tape and listen to the breaks between CD tracks to find out whether the stereo produces excessive hum or any rattling noises.

■ **Display and controls:** A flashy, colourful display might look impressive at first sight, but may not tell you much useful information and could become annoying after a while. Check whether the display tells you what you want to know.

Play with the controls to see what they do and whether the main functions are clearly labelled and easy to use.

■ **Remote control:** Look for well-labelled, well-sized and well-spaced buttons.



KENWOOD XD-550

Target price: \$699

Good points

- Best amplifier.
- Best speakers.
- Equal best cassette deck.
- Best instruction manual.
- Power-save mode: switches off after 30 minutes of no use in CD and tape modes.
- The only model tested with output sockets for surround speakers.
- The only model tested with a treble enhancement feature.

Bad points

- CD player skipped sometimes due to vibrations from the speakers.
- Worst remote control.
- No preset 'surround' modes. These effects aren't real surround sound, but try to simulate the sounds of music in different locations (such as in a concert hall or stadium).



SHARP CD-C1600

Target price: \$799

Good points

- The only tuner in the test that covers short-wave AM bands.

Bad points

- The only CD player that skipped when playing a test CD.



JVC MX-D401T

A remote control needs good-sized, well spaced buttons clearly separated into different function groups. The Pioneer's (right) was the best in the test.



The models are profiled in rank order. Prices shown are a good target to aim for when shopping around, based on nationwide checks in October 1997. Anything lower is a bargain.



SONY MHC-GR3

Target price: \$599

Good points

- Equal best tuner.
- Second-best speakers.
- Long warranty — three years.

Bad points

- Some controls are difficult to use.
- Equal worst cassette deck (for example, it reproduces high frequencies on copied tapes only very poorly).
- The only cassette deck tested that can't be remote-controlled and doesn't have auto-reverse.



YAMAHA GX-50

Target price: \$599

Good points

- Good instructions.
- Power-save mode: switches off after 30 minutes of no use in CD and tape modes.

Bad points

- 'Extra bass' feature that can't be switched off.

JVC MX-D401T

Target price: \$599

Good points

- Easiest to use overall.
- Long warranty — three years.
- Equal easiest controls to use.

Bad points

- Poor speakers.
- Relatively poor tuner frequency response.
- Equal worst cassette deck.
- No Dolby noise reduction on cassette deck.



PIONEER X-P270C

Target price: \$599

Good points

- Best remote control.

Bad points

- The only cassette deck tested that can only adjust for type 1 (normal) tapes.
- No Dolby noise reduction on cassette deck.



PHILIPS FW750C

Target price: \$699

Good points

- Equal best cassette deck.
- Equal easiest controls to use.
- Power-save mode: switches off after 15 minutes of no use in CD and tape modes.

Bad points

- The only CD player tested that can't be remote-programmed.
- The only CD player tested that doesn't have repeat play for a track or a whole CD.
- No Dolby noise reduction on cassette deck.

SANYO DC-F300

Target price: \$599

Good points

- The only model tested that allows you to connect an external surround-sound processor.

Bad points

- Worst speakers.
- Most difficult to use overall.
- Worst amplifier.
- Worst instruction manual (for example, no troubleshooting guide).



PANASONIC SC-AK20

Target price: \$599

Good points

- None that stood out.

Bad points

- 'Gimmicky' display that doesn't give much useful information.
- The only CD player tested that doesn't allow you to exchange the other CDs while one is playing.
- No Dolby noise reduction on cassette deck.



AKAI AC-520

Target price: \$549

Good points

- Equal best tuner.
- Equal best cassette deck.
- Best display (for example, it has a display dimmer).
- Power-save mode: switches off after a selectable time of no use in CD and tape modes.

Bad points

- No preset 'surround' modes.
- Poor instruction manual.



SANYO DC-F300

MINI STEREO SYSTEMS

1 2 3

TUNER FEATURE TA

Brand / model (in rank order)	Manufacturer / distributor	Origin	Target price (\$)*	Warranty (years)	Dimensions of main unit (WxHxD, mm)	CD player: drawer or carousel?	Output power (W)	Subwoofer output socket	Number of station presets (AM / FM where applicable)	Dolby B noise
KENWOOD XD-550	Kenwood	Malaysia	699	2	270 x 330 x 355	Carousel	53	✓	40	✓
SONY MHC-GR3	Sony	Malaysia	599	3	280 x 330 x 360	Carousel	42	✓	10 / 20	✓
PIONEER X-P270C	Pioneer	Malaysia	599	2	270 x 300 x 320	Carousel	23		24	
PANASONIC SC-AK20	Panasonic	Singapore	599	1	270 x 330 x 315	Drawer	35		12 / 12	
SHARP CD-C1600	Sharp	Malaysia	799	1	270 x 350 x 370	Carousel	73		40	✓
YAMAHA GX-50	Yamaha	Malaysia	599	2	280 x 320 x 360	Carousel	41		40	✓
PHILIPS FW750C	Philips	Malaysia	699	1	265 x 310 x 370	Carousel	79	✓	20	
AKAI AC-520	Akai	China	549	2	270 x 305 x 345	Carousel	75		30	✓
JVC MX-D401T	Hagemeyer	Malaysia	599	3	265 x 295 x 340	Drawer	31		15 / 30	
SANYO DC-F300	Sanyo	Malaysia	599	1	270 x 330 x 320	Drawer	47	✓	12 / 24	✓

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in October 1997.

(A) This model doesn't have an automatic search function. However, by pressing and holding buttons, you can manually search for a certain passage or the beginning of a track.

Features they all have

- Remote control for power (on/standby), select mode (CD, tuner, tape, aux), CD (disk select, play, stop, fast forward and backward search, pause, forward skip, back skip), tuner (band select, select preset station), volume control. All tested models except the **SONY** can also control the tape deck via the remote.
- AM loop, FM wire, provision to connect an external antenna.
- Speaker wires.
- Instruction handbook.
- Audio in: These sockets allow you to connect an external source, such as a turntable, VCR, TV or laser disk player. You can then listen to its sound via the stereo systems' speakers, or record it to tape.
- Headphone socket.
- **CD player features:**
 - Programmed play: A number of selected tracks

can be programmed and played in selected order.

— Repeat play (except the **PHILIPS**): The tracks from one or more CDs or a programmed selection of tracks can be played repeatedly.

— Random play: Tracks from one or all CDs are played in random order.

— Edit to tape: Automatic facilities to enhance recording to tape (for example, CD tracks can be selected automatically to fit the available tape length).

— While playing one CD, the others are exchangeable (except the **PANASONIC**).

■ Cassette deck features:

— Repeat play (except the **SONY**): The cassette can be played repeatedly.

— Auto tape select (except the **PIONEER**): While you can play back all types of tape on all the tested models, an auto tape select feature automatically recognises the type and adjusts for it (type 1 — normal, type 2 — chrome or type 4 — metal).

■ Recording features:

— On/off timer: Model can be programmed to switch on and off at preset times.

— Record from VCR/AUX and tuner.

■ Tuner features:

— AM (MW) and FM bands.

— Auto-tune: Automatically tunes in and stores radio stations.

■ Sound effects:

— Bass enhancement.

— Preset graphic equaliser modes (see table note 8).

— Preset 'surround' modes (except the **AKAI** and the **KENWOOD**).

1 Output power

To compare the power of stereo systems, the volume is turned up until the sound quality reaches a certain level of distortion, and the power of this sound output is noted. Most people will be able to hear distortion when it affects 0.5% or more of the total sound. We chose a level of 1% distortion, which allows a reasonable comparison for mini systems, as they can't be expected to perform as well as standard hifi systems.

None of the tested models can be turned up really loud without considerable distortion. For most family-sized rooms, a power of around 30 watts (at 1% distortion) will be sufficient. Party animals will probably want at least twice as much.

Most manufacturers claim their products' power at 10% distortion, which leads to more impressive figures but doesn't tell you a lot because you wouldn't want to listen to music that has a distortion level of 10%.

On some models you'll find mind-boggling power claims (for example, **PHILIPS**: 2000 W), which relate to the 'peak music power output' (PMPO). This figure is calculated from specific very loud noises, and is generally regarded as meaningless.

2 Subwoofer output socket

Models with a tick in this column allow you to connect a separate active subwoofer to boost low bass frequencies. 'Active' means the subwoofer needs to have its own built-in amplifier.

3 Number of station presets

The numbers tell you how many radio



The Panasonic's display is quite flashy, but in the end it doesn't give you much useful information.

5	6	7	8	9	10	11	12	13
KEY FEATURES					SOUND-EFFECT FEATURES			

Tape counter	Program search	High-speed copying	Personalised graphic equaliser modes	Microphone mixing / karaoke	Speaker performance score (%)	Other components' technical performance score (%)	Ease of use score (%)	Overall score (%)	Brand / model (in rank order)
✓	✓		3	✓✓	78	83	74	78	KENWOOD XD-550
			5		77	82	70	76	SONY MHC-GR3
	✓			✓✓	67	81	75	74	PIONEER X-P270C
	✓				68	82	71	73	PANASONIC SC-AK20
		✓			70	78	72	73	SHARP CD-C1600
✓	✓		4	✓✓	67	81	74	73	YAMAHA GX-50
	(A)	✓			61	83	75	72	PHILIPS FW750C
✓	✓	✓		✓	60	85	72	71	AKAI AC-520
	✓				54	74	76	67	JVC MX-D401T
✓		✓			35	76	68	57	SANYO DC-F300

equal

stations you can store. Some models limit the number per AM and FM band; where there's only one figure, it's the total number, regardless of the band.

4 Auto-reverse

One tick in this column indicates that one cassette drive has auto-reverse; models with two ticks have auto-reverse on both drives.

5 Tape counter

Models with a tick in this column have tape counters that measure the play time of tapes (not necessarily in minutes and seconds) on both cassette drives. Tape counters may be helpful to find a particular track quickly.

6 Program search

A tick indicates the tape deck can automatically search for the beginning of a track if there's a break of at least four seconds between tracks.

7 High-speed copying

Models with a tick in this column allow you to copy ('dub') tapes at a speed higher than normal play speed (usually twice as fast). The quality of dubbed tapes is usually worse than the original — in some of the tested models quite considerably.

8 Number of personalised graphic equaliser modes

All the models control tone with a graphic equaliser with preset sound modes for different types of music.

This column tells you whether you can also

program your own preferred settings and, if so, how many.

9 Microphone mixing/karaoke

Models with one tick in this column allow you to connect a microphone, and to mix sound (and record it onto tape, if you want to) by playing a tape or CD at the same time as singing or speaking into the microphone.

Two ticks indicate the model can in addition reduce the vocal part of a recording to enable karaoke singalongs.

10 Speaker performance score

The quality of the speakers makes the biggest difference to the quality of the sound you hear. That's why we've separated their score from the other performance scores — as you can see, some of them performed quite poorly. We assessed their quality with several tests, including the frequency response, which shows the unit's ability to evenly reproduce the frequencies audible to the human ear. Missing or emphasised frequencies may lead to an unbalanced sound.

11 Other components' technical performance score

We assessed the technical quality of the other components with various standard tests and measurements.

12 Ease of use score

A user panel assessed the following:

- Controls (for example, markings, layout, size and ease of operating knobs and buttons).
- Remote control (for example, markings, layout, size and ease of operating the keys).

- Display (legibility, intuitiveness, viewing angle).
- Instruction manual (for example, quality of contents and illustrations, presence of electrical safety warnings and a troubleshooting guide).

13 Overall score

The overall score is a combination of speaker performance, other components' technical performance and ease of use, weighted as follows:

- Speaker performance: 40%.
- Other components' technical performance: 30%.
- Ease of use: 30%.



Some CD players hold the disks in a carousel (top), while others stack them in a drawer. Our user panel thought the drawers were easier to use.



YOUR LETTERS

Buying safe baby products

Being pregnant in a remote northwest town with no baby shop can be a challenge. I found myself in this very situation last year. Your October '96 issue testing cots came to me at just the right time.

When I phoned a few baby stores to purchase the one safe cot recommended in your test, I was told by all the stores I rang that they didn't stock that particular cot, but had one just as good. But I had decided on this cot. When I couldn't get the manufacturer's phone number from directory assistance, I phoned you, who gave me the number. The manufacturer gave me my closest supplier's number and a cot was promptly sent to me.

More recently, I purchased a secondhand high chair and my 'gut feel' kept telling me that I'd done the wrong thing. Finally, I looked back through back editions of tests by CHOICE on high chairs and sure enough, the high chair I'd bought was unsafe. Your most recently recommended safe high chair is being freighted up to me now and my peace of

mind has returned. As for the unsafe high chair — it will definitely not be used by my or any other child again.

Your book, *The CHOICE Guide to Baby Products*, has also been a great reference and assistance.

Thanks, CHOICE, for making the purchase of my baby products so safe and easy and thanks for the peace of mind. Please keep the pressure up on our governments for the introduction of mandatory standards on all baby products. This is, after all, our future generation.

Carolyn Stevens
Kununurra, WA

Hair dyes and your health

I'm writing to ask if you have any information on hair dyes. I've read recently about the working life of hairdressers, where it was mentioned that they have to work with carcinogenic material, and this jogged my memory about reading about hair dyes that contain carcinogenic substances.

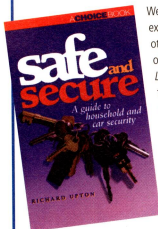
Have you investigated them?

Trish Pirrie
Brunswick, Victoria



CHOICE tests (and our *Guide to Baby Products*) find too many unsafe products — we'll keep up the pressure on governments to make safety standards mandatory on children's products.

LETTER OF THE MONTH



We want to hear from you — your experiences help our research and often let other readers know about scams and rip-offs. To say thank you for writing to us, *Your Letters* awards a prize of a CHOICE book to the 'Letter of the month'. This month's winner, Edward Sinden of Beckenham, WA, receives *Safe and Secure*, which explains how to make your home, your car and yourself safer, with practical tips on improving your security cheaply and effectively.

We're sorry we don't have the resources to answer all your letters

personally, and in the magazine we may edit them or print only an extract. See page 2 for how to reach us.

According to *Facefacts* — a CHOICE Book on cosmetics, skin and hair care — there have been numerous studies linking hair dyes with a variety of cancers and just as many studies showing no link at all. If you're asking, "Do hair dyes cause cancer?", our answer is, "We don't know." The evidence is inconclusive.

Having said that much, *Facefacts* warns that it's wise to minimise exposure to what could be a potentially toxic chemical. "Hairdressers are most at risk and should always wear gloves to avoid skin contact. They should make sure the salon is well ventilated to minimise the risk of inhaling vapours."

If you use hair dyes at home, you can minimise your exposure if you dye less often, don't leave it on your hair any longer than necessary and rinse your scalp thoroughly with water after use.

Buying spectacle frames

At my age, my spectacle lenses need to be renewed every two years. I suggested to my optician that he reuse the

frame, but he told me it wasn't practical. It seems to me that this is a matter for enquiry.

Now, the cheapest frame available is around \$140. Some are much dearer, and I ask myself how the price is justified. The frame is no more than a piece of moulded plastic; they must be stamped out by the thousand. I can buy a pair of sunglasses for \$15 and if I push out the lenses I have a frame which appears to be no different from the frame for \$140.

In contrast, the hardware store on my street is selling pedestal-type electric fans: three-speed, oscillating, with telescopic height adjustment, 15-inch fan and chrome guard, all for \$45. Consider the quantity of material and workmanship that goes into such an article; yet I could buy three of them for the same price as I have to pay for the tiny piece of bent plastic called a spectacle frame with a life of two years.

Edward Sinden
Beckenham, WA

Reusing your frame is a sensible way to save money

when you're getting new glasses, provided the frame is in good condition. Some opticians may charge a small fitting fee — say, around \$15 — to do this, but it's still less expensive than buying a new frame.

However, one major optical chain explained that they have to be careful when accepting responsibility for putting new lenses in a used frame. If they feel the frame is too weak or worn to withstand the stress of replacing the lenses, they'll advise against reusing it — otherwise, they risk breaking the glasses and being blamed for the damage or being held liable if the frame falls apart

only a month or so later.

Still, this doesn't mean you have to accept "no" for an answer. If the optical dispenser or optometrist feels you shouldn't reuse the frame and you don't see why, take your prescription and get a second opinion — especially if the frame is only two years old.

And if the cheapest frame your optician/optometrist sells costs \$140, that's another reason to look elsewhere — cheaper ones should be available for about half that price. Optometrists are required by law to give you a copy of your prescription on request, so you can shop around.

On the high price of frames, a major optical chain defends it on the grounds that they have to be precisely crafted to meet certain standards and be durable. Cheap sunglasses won't be built to the same standards, nor will they be

custom-fitted or guaranteed. However, we think it's still worth shopping around for less excessive prices. □



● RECALLS & BANS

If you find a recall or ban not on our list, please let us know. Companies often rent 1800 numbers for a couple of months after the recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct.

THE PRODUCT: Coles, Bi-Lo and Kmart have recalled **Cavendish & Harvey trio packs** of confectionery, comprising three 100 g packets, one box each, of **Dairy Butter Fudge, Vanilla and Chocolate Flavoured Fudge and Assorted Butter Toffees**, available at Coles, Bi-Lo and Kmart stores.

The problem: Random testing by the Australian Quarantine Inspection Service has revealed the presence of salmonella in the product, which is imported from Germany. No illness has been reported.

What to do: Don't eat the product. Return it to Coles, Bi-Lo or Kmart for a full refund. For further information contact Coles/Bi-Lo Customer Relations on 1800 061 562, or Kmart Customer Relations on 1800 634 251.

THE PRODUCT: Australian Independent Wholesalers has recalled **Fabulous Lemon**

dishwashing detergent 2 litre, with a use-by date of July 1998 and the batch code number B0607H7. This product was sold through the following retail outlets: True Value Supermarket at Ruse, NSW, Campbelltown Superbarn, NSW, Shop Ezy at Holder, ACT, Coolman Store, NSW, and Deli Italia at Concord, NSW.

The problem: The product has been mislabelled as dishwashing detergent when, in fact, the content is bleach.

What to do: Stop using the product immediately. Return it to the nearest outlet of the stores mentioned above for a full cash refund. Further information may be obtained from the Product Recall Co-ordinator toll-free on 1800 622 818.

THE PRODUCT: Woolworths, Safeway, Purity and Roelf Vos supermarkets, Crazy Prices Stores and Woolworths Variety Stores have recalled **Acme Electronic Flying Insect Exterminators**, purchased since December 1996 with the code number 82206 and the approval no. Q91067, both printed on an adhesive label on the upper casing of the appliance. The barcode number is 930063910648.

The problem: This product doesn't comply with safety requirements as set down in AS3150, and removal of the base plate during operation could be dangerous.

What to do: Don't operate it. Return it to the place of purchase for a full cash refund. For further enquiries call the Product Recall Co-ordinator toll-free on 1800 633 272.

THE PRODUCT: Dimplex Australia has recalled **Glenair portable oil-filled column heaters** purchased since January 1995. Model numbers and wattage are as follows: SL24 2400, SL24T 2400, SLG20 2000, SLG20T 2000, SLG24 2400 and SLG24T 2400.

The problem: Heaters could leak oil at a welding joint when in use.

What to do: Don't use the heater. Call Dimplex Australia on its toll-free advice line on 1800 684 348 to arrange an inspection. Any heater with the above fault will be replaced at no cost with a new unit of equal or greater value.

THE PRODUCT: Faulding Healthcare has recalled **forearm (elbow) crutches with aluminium single-pin button height adjustment (model 7750)**. The product has a Faulding foil label with the model number and ACN 000 875 034. It has a single brass-pin height-adjustment button for each of the top and bottom sections of the shaft.

The problem: There have been some reports of the inner tube retracting back inside the outer tube. This may also occur

when the single spring-loaded adjustment is depressed and fails to return to its preset position.

What to do: Call the Faulding customer service hotline on 1800 651 654, 9.30 am to 3.30 pm, Monday to Friday, to arrange for inspection. If necessary the crutches will be modified or replaced free of charge.

THE PRODUCT: 3M Pharmaceuticals has recalled all batches of the **Medihaler-epi 400 dose pressurised inhaler (Aust R54136)**, which is used as part of the treatment for allergic reactions to drugs or insect stings. It is also discontinuing the product.

The problem: Recently conducted stability testing showed that the quality of the product can't be guaranteed to meet the required standard throughout its shelf life.

What to do: You should discuss alternative treatments with your doctor as soon as possible. Return the Medihaler-epi 400 dose inhaler to the pharmacist who dispensed it to you. For more information call 3M Pharmaceuticals: (02) 9875 6289 or (02) 9875 6272.

INSIDE story

PEOPLE OFTEN ASK WHERE WE GET the products from that we test for CHOICE. The answer is that, for various reasons, we buy them on the open market like any ordinary consumer.

First, we have to maintain our independence — we can't take products as loans or gifts from their manufacturers without the risk of being seen as 'behind' to them.

Second, we want to find out what it's like to be a consumer out in the marketplace. If a particular brand is hard to find in shops, or shopping for a certain type of product (such as a computer) is problematic, we want to know.

So we have two staff members whose job is to spend their working life shopping. While this may sound like a dream job to some dedicated shoppers, it's not quite the fantasy fulfillment it might appear.

For a start, our buyers are anonymous — we want them to be treated like ordinary consumers, so they don't usually tell the shops they're buying for CHOICE. This means they can't just walk into one shop and hand over a list of, say, 12 televisions without raising some suspicion. So they spend a lot of time driving from shop to shop and suburb to suburb to place their orders.

Then there are the hard-to-find products. If a buyer tries five or six shops with no success to find the particular model we want to report on, we'll take it out of the test. There's no point discovering the best performer in the world if you won't be able to find it to buy.

That said, though, our buyers must love their jobs. Between them, they've been with us about 30 years — and they still manage to shop for us without hearing, "Here comes one of the CHOICE buyers."

ABOUT THE AUSTRALIAN CONSUMERS' ASSOCIATION

The Australian Consumers' Association is a non-profit, non-party-political organisation, established in 1959 to provide consumers with information and advice on goods, services, health and personal finances, and to help maintain and enhance the quality of life for consumers. It is a Council member of Consumers International.

We are completely independent. We buy all the products we test on the open market. We are not beholden to any commercial, government or union interests, and we don't accept advertising, paid or unpaid. Our income is derived from the sale of CHOICE and our other publications and products.

We test and rate products and services. Our ratings are usually based on quality without regard to price, and are derived from lab tests, expert judgments and reader surveys. If a product is high in quality and relatively low in price, we deem it a **Best Buy**. A rating applies only to the brand and model tested, not to other models sold under the same brand name, unless so noted. We can't conduct special tests or provide information about tested products beyond what appears in CHOICE. Financial information in CHOICE is of a general nature, and is not intended to be advice on individual investments which should or should not be made.

'No commercial use' policy. Our ratings and reports may not be used in advertising or for any other commercial purpose. The Consumers' Association will take all steps open to it to prevent commercial use of its materials, its name, and the name of CHOICE or our other publications. Please report any apparent violation to the Consumers' Association, 57 Carrington Road, Marrickville 2204; phone (02) 9577 3399; fax (02) 9577 3355.

We represent and act in consumers' interests. We lobby and campaign on behalf of consumers to promote their rights, to influence government policy, and to ensure consumer issues have a high profile in the public arena.

Membership. Subscribers can become voting members of the Consumers' Association on application. Membership costs \$79 per year, which covers your subscription to CHOICE and a further subscription to our consumer policy and campaigning magazine, *Consuming Interest*.

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Mailing lists. We never sell the CHOICE mailing lists to other organisations.



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CHOICE Books publishes non-fiction titles on a wide range of topics, with a consumer perspective. **Consumer Bookshelf** offers both CHOICE Books and material from other publishers by mail order.

COMPUTER CHOICE (published bi-monthly) provides information and tests for home computer users.

CONSUMING INTEREST, our quarterly policy and campaigning magazine, provides reports, analysis, opinion and debates on consumer issues. It also gives updates on the lobbying and campaign projects of the Consumers' Association.

CHOICE Health Reader (published 10 times per year) gives you the latest findings on nutrition, exercise and all branches of medicine and health care, compiled from up to 200 international scientific journals.

CHOICE Travel is produced by the UK Consumers' Association and reprinted by CHOICE four times a year. Its reports are independent in the same style as CHOICE and, while they're written from the perspective of a European base, most of the information in them is just as useful to travelling Australians.

CHOICEFax supplies faxed copies of many CHOICE and *Computer CHOICE* articles for \$6 per article to subscribers, \$16 to non-subscribers. Call (02) 9577 3277 to order by credit card.

CHOICEMONEYLINE gives accurate and independent credit information by phone. It provides up-to-date details about the most competitive home loans, personal loans, overdrafts and credit cards from banking institutions in your area. The information can also be faxed. Call 1900 17 00 88. (Calls cost \$1.95 per minute. Mobile phones have higher rates. Data from Canna; phone service from Broadsystem).

Test Research provides fee-for-service testing and research on consumer products, services and regulatory issues for other consumer organisations, government and industry. **Manager:** Raja Rajagopal. **Contact:** Jeannette Dwyer on (02) 9577 3333.

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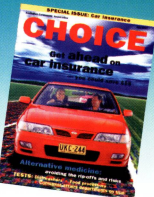
How to use this index

Bold type indicates a test, survey or trial report, normal type indicates other articles.
***** indicates an update of a previous report, additions or corrections to reports, small follow-up items or letters.
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Twice the protection?

The new sunscreen labels you'll see this summer will boast higher SPF numbers. But does double the SPF mean double the protection?

■ Sunscreen isn't the best form of sun protection. In fact, it's the last line of defence in a chain of protective measures that includes sunglasses, long-sleeved shirts, wide-brimmed hats and making the best use of shade to avoid the sun's intense rays in the middle of the day. For more details on protecting yourself from the sun, see *Choosing a sunscreen*, CHOICE, November 1996.

SUNSCREENS LABELLED UP TO SPF30+ can now be sold in Australia — well beyond the former standard that capped claims at SPF15+. It's a change that some consider meaningful and others fear is misleading. So what do the higher numbers mean?

SPF (sun protection factor) is a laboratory measure which grades the ability of a sunscreen to filter out one type of ultraviolet radiation, UVB. If your skin normally begins to burn in 10 minutes, an SPF15 sunscreen — offering your skin 15 times its natural protection — would, in theory, prevent burning for 150 minutes.

Twice as safe?

It's easy to look at these figures and conclude that an SPF30+ sunscreen would double your protection. But the Anti-Cancer Council of Victoria is quick to point out that SPF numbers are derived under carefully controlled lab conditions which "... can't be equated to working out burn times when the product is used in everyday life".

The effectiveness of a sunscreen is altered by 'real life' factors like the time of day and year and your skin type. Or it may be rubbed off or sweated away. Studies have also shown that people typically apply much less sunscreen than is used in lab tests to determine SPF.

In addition, there's evidence that another type of radiation, UVA, may also play a contributing role in skin cancer. Sunscreens labelled 'broad-spectrum' will filter out some of both kinds, but the level of UVA filtration may not necessarily improve with the increase in SPF.

What's more, while SPF16, for example, filters out 94% of UVB rays, SPF32 only raises that to 97% — the 'double protection' effect is in fact the difference between 6% and 3% of these rays reaching your skin.

For these reasons, the Anti-Cancer Council of Victoria warns consumers to view the higher numbers in the proper perspective. "SPF30+ doesn't offer 'double the protection', nor does it mean people who use it can spend 'twice as long' outside without getting sunburnt or skin damage."

Worth paying more?

Being able to clearly identify a higher SPF may appeal to people who are particularly sun-sensitive, or must spend a great deal of time in the sun. Others might simply like the extra peace of mind (see left).

However, you should remember that the protective differences between SPF15 and SPF30 aren't considered significant. Instead, it's a matter of personal choice: are you willing to pay for the small increase in protection?

The bottom line

A false sense of security can be a dangerous illusion when the consequences — increasing your risk of skin cancer — are so severe.

An SPF30+ is fine if you want slightly higher protection, but it won't let you safely double your time in the sun — beware of advertising claims that might suggest otherwise. Broad-spectrum SPF15 sunscreens still offer effective protection for most people. □



PEACE OF MIND



When we wrote about sunscreens last year, we made the point that doubling the SPF number doesn't double the amount of ultraviolet radiation filtered out. In our example, we said that SPF16 filters out 94% of UVB rays, while SPF32 only raises that to 97% — 3% of the rays reach your skin instead of 6%. We still stand by this point.

Rob Evans disagrees with our perspective. Instead of seeing this as a small 3% increase, he sees it as a way to cut UVB absorption from 6% to 3%. To him, this is a significant difference.

"If my children are going swimming for one hour," Rob said, "I could halve their radiation exposure by using an SPF32 instead of an SPF16 sunscreen. As they're fair-

skinned and live in Queensland, this is a very important consideration for their future health.

"While there may not be a direct relationship between the SPF and the length of time you can stay in the sun," Rob said, "there's certainly a direct relationship between SPF and the amount of radiation reaching your skin over a given time."

Rob's approach is a reasonable one — not using a higher SPF as an excuse to stay out longer, but simply as a way to further reduce his children's exposure to UVB rays.